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NOTICE TO SUBSCRIBERS

Consequent on paper rationing, new subscribers in Great Britain cannot be accepted until further notice. Any applications will be put on a waiting list, and will be dealt with in rotation in replacement of subscribers who do not renew their subscriptions. Orders for overseas destinations can now be accepted

TO CALLERS AND TELEPHONERS

Until further notice our office hours are: Mondays to Fridays 9.30 a.m. till 5.30 p.m.
The office is closed on Saturdays

ANSWERS TO ENQUIRIES

By reason of staff shortage due to enlistment, we regret that it is no longer possible for us to answer enquiries involving research, or to supply dates when articles appeared in back numbers, either by telephone or by letter

ERRORS, PAPER, AND PRINTING

Owing to shortage of staff and altered printing arrangements due to the war, and less time available for proof reading, we ask our readers' indulgence for typographical and other errors they may observe from time to time, also for poorer paper and printing compared with pre-war standards

An Industrial Transition Difficulty

THE difficulties associated with programmes to increase peacetime production and to develop export trade, are not made less by the current demobilisation and call up to the Forces arrangements. Without criticising the general plan of demobilisation or the incorporating in the Armed Forces of younger employees to release groups of men who have seen service, the two together often bear hardly on the industrialist. In the case of one locomotive manufacturing undertaking, which employs some 3,000 workers, of whom 1,000 are skilled men, 236 of these skilled men are between the ages of 18 and 30, and therefore come under the present arrangements for enlistment. These 236 men are all skilled operatives and around each of them dilutee labour has been built up. The effect of the withdrawal of these men from industry will make it impossible to maintain in employment a considerable number of the dilutees. Not only will there be a decrease in total employment, but the overall effect will be a decrease in output of some 30 per cent.—a serious matter in view of the need for locomotive production. In fairness, it must be added that representations by the company have resulted in an understanding that not all the 236 men will be withdrawn at the present time, but even so it is clear that until this company receives back some of its men from the Forces, it will be placed in an unsatisfactory position.

* * * *

Sir Felix J. C. Pole

The announcement that Sir Felix Pole has relinquished the Chairmanship of Associated Electrical Industries Limited because of eye trouble has been received with sympathy and regret by a large circle of railway and other friends who have observed, or have been actively associated with, Sir Felix Pole in his long and interesting career as a railway and industrial administrator. In his early years of association with the Great Western Railway he was one of the pioneers in the campaign for research and the acquisition of knowledge affecting railway problems and the intelligent application of the results with the object of improving railway transport operation. Since Sir Felix Pole retired from the General Managership of the Great Western Railway in 1929, to become Chairman of Associated Electrical Industries Limited, his knowledge and experience have been enlisted in many and varied national and business problems. Although it is sixteen years since he left the G.W.R., in the public mind his name is still associated with railways. A criticism frequently levelled against the heads of large businesses in this country is failure to travel sufficiently and to view conditions on the spot. That charge could not be laid against Sir Felix Pole, for among the countries he has visited on business are the Sudan, Palestine, Iráq, India, and Ceylon, the United States, South Africa, Russia, and South America. A portrait and some biographical details of Sir Felix Pole, who is remaining on the board of Associated Electrical Industries and becomes Deputy-Chairman, are given elsewhere in this issue.

* * * *

Institute of Transport Presidential Address

As was to be expected, air transport was the subject chosen by Sir Frederick Handley Page for his presidential address before the Institute of Transport on October 8. Although a considerable proportion of his speech concerned the development of that form of communication, and the evolution and construction of aircraft, he had a good deal to say on the subject of other forms of transport and their relations with what, from now on, must be considered in many ways a potential rival. He expressed a hope for good relations in this respect, based on the facing of present-day facts; and he asked for the playing of a leading part by the British in the new "Air Age." Sir Frederick Handley Page holds a double Presidency for 1945-46, as, in addition to his Presidency of the Institute of Transport, he is also President of the Royal Aeronautical Society. He is Managing Director of Handley Page Limited, which was founded in 1909, and is the oldest limited company in Great Britain engaged in aircraft manufacture. A portrait and biography are in our Personal columns, and an abstract of his Presidential Address is given elsewhere in this issue.

* * * *

Nationalisation and the Civil Service

As we have pointed out frequently in these columns, one weakness of nationalising any industry is that it would involve administration of commercial undertakings by civil servants, whose training does not fit them for work of that kind. As *The Observer* pointed out in a leading article last Sunday, the civil service was built up as a defensive body, safeguarding an old way of life, not as a creative body, laying down the pattern of a new way. It was born to serve the Victorian State, clearing away with its exam-tested men the nepotism of the Tite Barnacles. The Victorian State did not want positive action; it left initiative to the individual; it asked of its officials care, deliberation, and thrift, and the whole civil service technique was fashioned to provide these. This discipline suited Victorian

laissez faire. It began to seem out of place with the growth of social reform. With the coming of Socialism it is potentially ruinous. It is a commonplace that small matters which in any business house would be rapidly settled by a departmental manager, are apt to be "minuted" here and there in a Department, the documents wandering from one person to another for comment, and finally even reaching the Minister himself, after grotesque waste of time and trouble.

* * * *

Overseas Railway Traffics

Recent movements in the prices of securities of British-owned railways in Argentina have been generally in a downward direction, with the exception of some debenture stocks. Traffic increases in the 12th and 13th weeks of the financial year have on the whole been moderate, with two exceptions, namely, £91,062 on the Buenos Ayres Great Southern, and £26,813 on the Buenos Ayres Western. The Central Argentine increase in the two weeks has been £9,303, and the advances shown by the Entre Rios, Buenos Ayres & Pacific, and Argentine North Eastern have been respectively £4,368, £1,750, and £1,143. Aggregate receipts of the Antofagasta for the 39 weeks of 1945 are £1,168,630, an improvement of £54,180. With an increase of £1,794 for the fortnight to September 30, the Nitrate Railways return aggregate receipts of £137,678 for the 39 weeks, marking an increase of £1,777. The Leopoldina has a rise of £1,419 in the 39th week, and its aggregate of £2,018,862 to date shows an improvement of £189,918. Receipts of the Peruvian Corporation for the quarter to September 30 amount to £422,833, an increase of £47,181.

	No. of week	Weekly traffics	Inc. or dec.	Aggregate traffic	Inc. or dec.
		£	£	£	£
Buenos Ayres & Pacific* ...	13th	124,000	+ 875	1,600,250	+ 62,688
Buenos Ayres Great Southern*	13th	207,438	+61,750	2,552,375	+342,312
Buenos Ayres Western* ...	13th	81,313	+ 13,063	919,438	+ 68,563
Central Argentine*	13th	195,366	+ 3,578	2,475,347	+130,959
Canadian Pacific	39th	1,531,800	−177,200	47,296,000	−254,600

* Pesos converted at 16 to £

Aggregate net earnings of the Canadian Pacific Railway from January 1 to August 31, 1945, amounted to £4,386,400, a decrease of £199,600 in comparison with the first eight months of 1944. The aggregate gross earings of £42,099,800 showed an improvement of £35,400.

* * * *

Train Reservations on the G.N.R. (Ireland)

An appeal by a correspondent of the *Belfast News Letter* to the Great Northern Railway Company (Ireland) "to remedy the unfairness . . . of entirely booking out trains" has led to an explanation by Mr. H. S. Knott, the Traffic Manager, of the company's policy in the matter. The seat reservation arrangements introduced in November, 1943, and the facilities for the advance booking of passenger rail tickets (which have been considerably extended in recent years) are designed to ensure that the great majority of passengers travelling on the services affected are given prior assurance of seats. For the residue of passengers, in excess of the safe limit beyond which the company cannot reasonably guarantee the same facility, special provision is made. For each ordinary main-line train the estimated total accommodation is allocated for booking purposes on a quota basis to (*a*) the company's booking office, (*b*) travel agencies (three in Belfast), (*c*) passengers joining at intermediate stations, (*d*) holders of return tickets, and (*e*) a very small reserve for contingencies. Passenger rail tickets are issued against these quotas, and a slightly less number of seat reservation tickets because of the possibility of an occasional error in the recording of particulars of reserved seats. Thus a reasonable effort is made to leave some accommodation free for people who have to travel at the last moment in exceptional circumstances. Nothing but the most abnormal and urgent considerations should be allowed to prejudice the claims of people who endeavour to obtain their tickets as early as possible.

* * * *

Southern Railway and Passenger Comfort

Brief reference was made last week to the first of the Southern Railway post-war passenger coaches which recently has been on view to the public, and elsewhere in this issue we publish an illustrated description of the vehicle. The opinion of the public has been invited by means of question-and-answer forms, copies of which those inspecting the coach have been asked to complete. Production of coaches of this type is not being held up pending the incorporation of any changes prompted by suggestions during the public exhibition of the prototype coach. The first coach is of composite type, containing four first class, and three third class, compartments; and accommodates 48 passengers. The design incorporates several new features; and, on account of careful attention having been paid to detailed design, the tare weight has not been correspondingly increased, in spite of greater length and width in comparison with the company's pre-war standard coach.

Proposed Toronto Underground Railway

The post-war plans of the Toronto Transportation Commission for an underground railway system in that city, to which we have made various brief references, have now been announced as including both a north-south and an east-west route. The north-south route is to be from the Union Station on the south to Eglinton Avenue on the north, a total distance of 4½ miles. The estimated cost is $28,050,000. The plan also provides for surface transport north of the proposed Eglinton terminal, by new tramway equipment on rebuilt tracks on Yonge Street; and the diversion of the present Bay Street surface electric railway route to St. Clair Avenue and Yonge Street. Also, it contemplates the extension of the present Dupont Street surface electric railway route south on Bay Street to the docks at the Toronto waterfront, which would permit of the abandonment of the present electric railway tracks in Avenue Road. The Commission's plans for the east-west rapid-transit route generally along the line of Queen Street have been prepared in alternative forms, one in the event that Queen Street is widened, and the other for use in case it is not. Estimated costs of the two plans are $23,000,000 and $19,300,000 respectively.

* * * *

Hourly Southern Main Line Services Again

The Southern Railway is to be congratulated on the scale of main-line train service restoration which it has found possible to bring into operation in its first post-war timetables, effective from October 1. As detailed elsewhere in this issue, hourly departures from London to the coast resorts have been reinstated almost completely on many routes. To Southampton and Bournemouth, for example, additional down expresses allow an hourly departure between 8.30 a.m. and 7.30 p.m., with two exceptions; and three additional trains are running from Bournemouth to Waterloo in times between 2 hr. 20 min. and 2 hr. 30 min. Between Waterloo and Portsmouth, from 7.45 a.m. to 9.45 p.m. down, with one exception, and from 9.24 a.m. to 8.24 p.m. up, the hourly sequence of express electric departures is completely unbroken. Similarly on the Central Section, save for a gap from 12.45 p.m. to 3.45 p.m., there are now electric expresses from London to Eastbourne and Hastings at every hour from 9.45 a.m. to 8.45 p.m., and Brighton benefits by the restoration of a number of its 60-min. trains to and from Victoria. On the Eastern Section, it is pleasant to see such a time restored as 85 min. from Charing Cross to Folkestone Central, within 5 min. of the preacetime 80 min. allowance over this none-too-easy 70-mile route.

* * * *

The L.M.S.R. Southend Speed-Up

The most revolutionary feature of the L.M.S.R. winter timetables, taking effect from October 1, is the complete recasting and very substantial acceleration of the train service between Fenchurch Street and the residential stations in the Leigh, Westcliff, and Southend-on-Sea area. During the business hours, in both directions, the accelerations of practically all the trains range from 12 to 20 min., which means that the residents in these Thames-side areas who come up daily to London for business reasons stand to gain from 2½ to 3 hr. each week by faster travel. The fastest time from Fenchurch Street to Southend has come down from 69 to 57 min., and in the up direction the cut in the quickest journey is accelerated from 65 to 52 min., a time which equals the best operative before the outbreak of war. The service has been amplified also by the insertion of seven additional trains in the down evening business service, and six in the morning service to Fenchurch Street. In general, the service frequency is all but equal to that of the 1938-39 winter, and the average overall times are but a minute or two slower than the pre-war standard. Sufficient extra trains have been introduced to permit a reversion to the staggered arrangement of stops in the Southend area.

* * * *

Electrification of European Railways

One of the noteworthy features of the recent war in Europe has been the high standard of efficiency of electrified rail services, and this, doubtless, is a factor in the decisions which have been taken recently in various countries to extend their electrified mileage. The Belgian Government is planning to electrify its railways on a large scale in the near future; at present the only line worked by electric traction is Brussels-Antwerp, 27 miles. In the neighbouring country of Holland, the important decision to convert to electric traction the whole of the steam-operated railway system was taken by the Netherlands Government at the beginning of June. Before the war, some 373 miles of double track were electrified, but on only 75 route miles have the overhead wires been left intact; of the remainder, some 205 miles have had the overhead wires removed, and 93 miles have been stripped completely, Of the 75 sub-stations, 46 have been completely stripped of all transformers, mercury-arc rectifiers, and switchgear. According to the Norwegian Telegraph Agency, the Director-General of the Norwegian State Railways announced recently that electrification

of all main railway lines in Norway is to be undertaken immediately, in response to a general public demand. Work on the first stretch, from Bergen to Voss (about 60 miles), is to begin immediately.

* * * *

Railway Executive Committee Chairmanship

A PRESS announcement from the Ministry of War Transport last week stated that Sir Alan G. Anderson, G.B.E., had resigned from his positions of Controller of Railways and Chairman of the Railway Executive Committee, as from September 30, and that the Minister, Mr. Alfred Barnes, in future would act as the Chairman of the Committee, but would delegate the day-to-day conduct of the Committee's business to the present Deputy Chairman, Sir James Milne.

It will be recalled that on September 1, 1939, the Minister of Transport took control of the railways and the L.P.T.B. under the Emergency (Railway Control) Order, 1939, and appointed the R.E.C. to be his agent for the purpose of giving directions under the Order. Sir Ralph Wedgwood was appointed Chairman of the Committee and held this office until August, 1941. Sir Alan Anderson then succeeded him in the dual capacity of Chairman of the R.E.C. and the new post of Controller of Railways, which appointment, it was then understood, was intended to secure a closer relationship between the Ministry of War Transport and the Committee. Sir James Milne was appointed Deputy Chairman of the Committee at that time and has since continued to act in that capacity.

No indication is given by the Ministry as to whether the decision of the Minister to become Chairman of the Committee foreshadows a still closer relationship between it and the Ministry, or whether in practice the arrangements will be similar to those which operated during the 1914-18 war. On that occasion, when the Government took control of the railways in August, 1914, the President of the Board of Trade became the official Chairman of the Committee, but he did not attend the meetings and Mr. H. A. Walker (afterwards Sir Herbert Walker, K.C.B.), General Manager of the L.S.W.R., was appointed Acting Chairman and in that capacity signed all official documents issued by the Committee.

* * * *

London Transport Organisation

FOR some time it has been known widely that Mr. T. E. Thomas, the General Manager of the London Passenger Transport Board, intended to retire in the near future, but the first official intimation was made last weekend when the Board announced that he would retire at his own request on October 20. No successor has been appointed, but certain consequential changes were announced simultaneously (and are recorded this week in our Personal columns) which appear to indicate that the new London Transport organisation which came into effect on December 1, 1943, is not being perpetuated.

It may be recalled that the arrangements in the early days of the existence of the London Passenger Transport Board provided for the late Mr. Frank Pick, as Vice-Chairman & Chief Executive Officer, to act virtually as Managing Director, in that operating, engineering, and commercial matters, were under the direct control of one officer. Mr. Pick decided not to seek re-appointment as a Member of the Board on the expiration of his seven-year term of office on May 17, 1940, when he retired from the Board's service. Important changes were made in the Board's organisation with effect from May 3, 1940, whereby the office of Chief Executive Officer was abolished, and the work of the Board was divided into seven departments, each under a Head of Department, reporting direct to the Board.

The revised scheme of organisation which was introduced on December 1, 1943, brought three of these departments (namely, Operating, Engineering, and Commercial) under the charge of the General Manager, to which office Mr. Thomas was appointed. Incidentally, the title of General Manager had not been used previously (without departmental qualification) in the organisation of London Transport. Now, on Mr. Thomas's retirement, appointments have been made regarding road transport whereby Mr. S. R. Geary, the present Operating Manager (Central Board) becomes General Manager (Road Services), responsible for all road services, including both operating and machanical engineering departments. Mr. G. F. Sinclair, the Chief Engineer (Trams & Trolleybuses), becomes Deputy General Manager (Road Services); and Mr. A. A. M. Durrant, the Chief Engineer (Buses & Coaches), becomes Chief Mechanical Engineer (Road Services), responsible to the General Manager (Road Services) for the road mechanical engineering departments.

Another change, also becoming effective on October 20, is that Mr. J. H. Parker, the Chief Electrical Engineer, is retiring on grounds of ill-health, and that Mr. P. Groom-Johnson, the present Chief Engineer (Civil), is to become Chief Engineer, with responsibility for both the civil and electrical engineering departments.

The corresponding railway appointments in the operating and mechanical departments will be awaited with keen interest. If a General Manager (Railways) be appointed, with similar responsibilities to his opposite number in the road transport sphere, it would seem likely that he will be responsible ultimately for the Chief Mechanical Engineer (Railways). The status of the departments of the Chief Engineer and the Commercial Manager are other matters on which the decision of the Board is awaited with interest.

* * * *

Compartment or Open Stock for Suburban Services?

WITH the resumption of work on new carriage construction and also on suburban electrification schemes deferred because of the war, the controversy regarding the respective merits of compartment and open stock for suburban services is likely to be re-opened. An article in our August 17 issue dealt with the layout of seats and the ideal ratio of seating to standing space in open coaches to secure maximum convenience. There are still railway officers who are not convinced that open stock is superior to the traditional compartment design; it may, therefore, be an appropriate moment once more to review the arguments on either side.

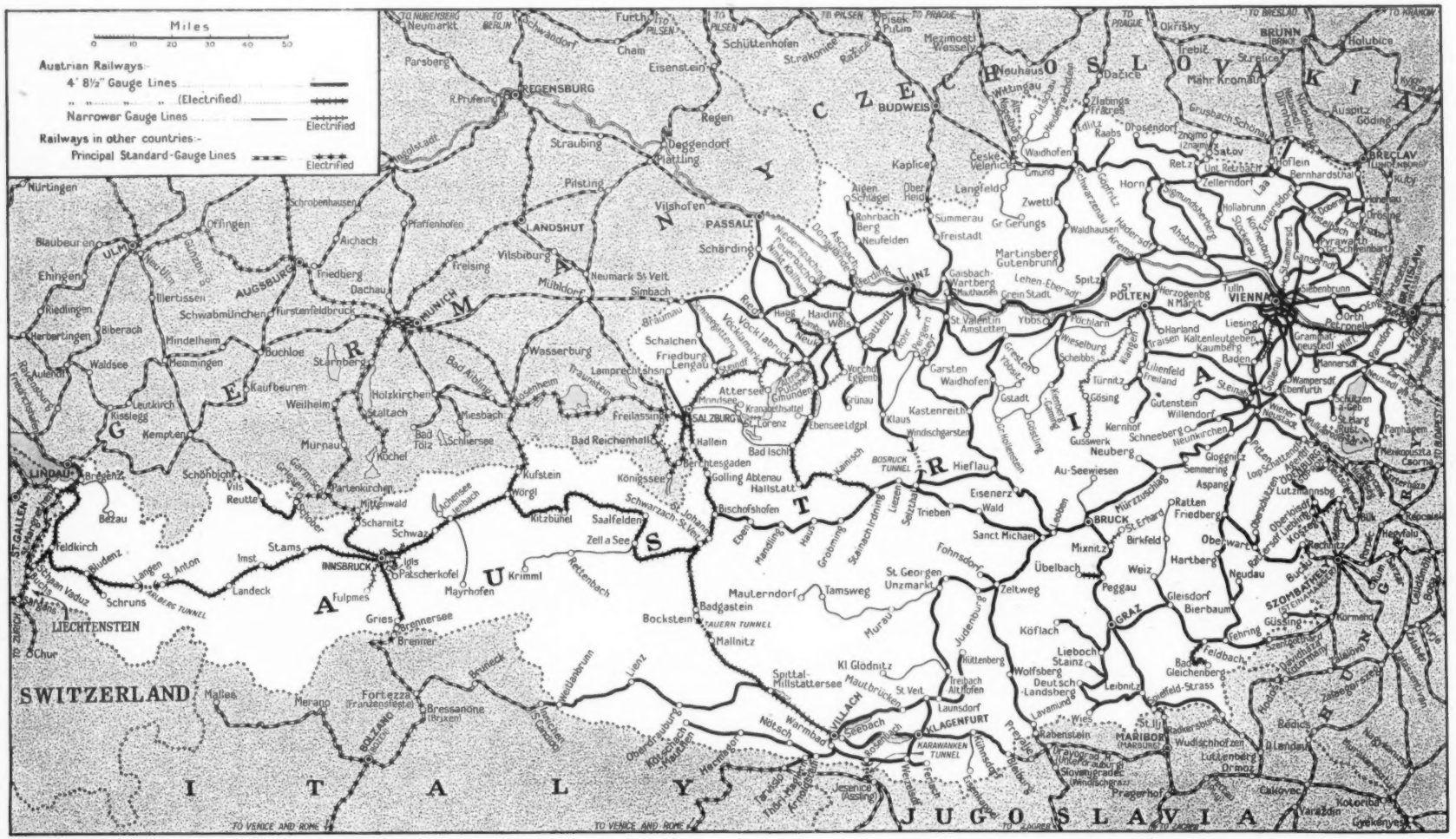
The advocates of the compartment type of stock claim two main advantages; they can provide (*a*) more seats for any given length of train, and (*b*) more doors in relation to the total number of seats, than is possible with open stock. This, they maintain, yields the two basic desiderata for crowded suburban services: maximum seating capacity and minimum length of station stop. As to seating capacity, however, the supporters of the open vehicle argue that, in fact, there is always liable to be some standing, whichever type of stock is adopted, on heavily-trafficked routes. The advocates of compartment stock may propose under normal conditions to provide a seat for everyone; but they cannot guarantee to do this under abnormal peak loads even now—still less in future years, when the population of any individual suburb may have increased substantially.

Moreover, all parties are agreed that standing in non-corridor compartment stock ought to be eliminated, because it is productive of the very worst discomfort not merely to those who stand but also to those who are seated. The unfortunate "standees" (to use that grotesque term) are jammed between the knees of the seated passengers with no hand-support other than the luggage rack—apart from those at the ends of the compartment who must perforce lean against the carriage doors, a most undesirable and unsafe practice. In such circumstances it is surely better to provide a rather smaller number of seats, but to give the standing passengers some freedom of movement and support from straps or grab-rails, so that both seated and standing passengers are freed from the worst discomfort.

On short journeys, moreover, it is noticeable that some passengers will prefer to stand in open stock, even when there are seats available On longer journeys the "turnover" of seats makes it unlikely that any passenger will have to stand for the whole journey. For instance, on the morning "up" journey, the starting-point passenger probably will get a seat in the train although the intermediate-station passenger may have to stand; in returning at night, the seats will go to the first comers at the terminus, but so many will alight *en route* that the long-distance passenger will be pretty sure of a seat for the latter stage of his journey. Trains of compartment stock, on the other hand, not infrequently reach their suburban destination with some passengers still standing, although neighbouring compartments may have plenty of seats empty; this is obviated by the more even distribution of load obtained through the use of open stock.

As to the length of station stop, the supposed advantage of compartment stock is often nullified by the last-minute searching by passengers up and down the train for a less crowded compartment. A careless passenger will leave a single door unlatched and delay a train from starting while a porter runs several coach-lengths to

The Railways of Austria



The railways of Austria and neighbouring territories, showing the international frontiers immediately before the Anschluss. The lines in Austria, and the progress of electrification, are revised in accordance with the latest information available in Great Britain. The most recent electrification is that to Villach, to improve the Tauern route; this was completed in 1944 *(see our issue of December* 8, 1944, *page* 582)

attend to it. Alternatively, a train starting with an unlatched door may have to be stopped by the signalman.

Some minor advantages of the open vehicle with power-operated doors are: virtual elimination of risk of molestation of women passengers: larger windows and better visibility: and elimination of claims from accidents caused by doors being slammed on a passenger's hand or foot, or swinging open whilst the train is in motion.

* * * *

The Railways of Austria

AFTER the first world war, the Austrian Federal Railways worked all the main lines in that part of the old Austro-Hungarian Empire which were constituted into the Republic of Austria, including those formerly owned by the Empress Elizabeth's Railway and the Austrian Southern Railway, and those parts of the State Railway system of the former Austro-Hungarian Empire which lay in Upper and Lower Austria, Tyrol, and Carinthia. From October 1, 1923, the Austrian Federal Railways were conducted as an independent enterprise, with a management separate from the State. As a result of the poverty of the country in natural mineral fuel, and the abundance of potential water power, a comprehensive scheme of electrification was a feature of the period between the two world wars. On March 18, 1938, the German Reichsbahn assumed control of the Austrian Federal Railways, after the incorporation of Austria into the German Reich. Railways in Sudetenland, which had been in the old Austro-Hungarian Empire before 1914, were joined to the Reichsbahn in 1938. In accordance with the declared Allied policy of regarding Austria as a German-occupied country, Austria has been treated as a separate administrative unit since the defeat of Germany, tentatively within the frontier applying at the time of the *Anschluss*. The ultimate boundaries of the country, and the fate of its railways, remain to be fixed by the peace settlement. At the time Austria was incorporated into the German Reich, the total route length of the Austrian Railways was 4,450 miles, of which 848 miles were privately owned.

The policy of the Germans in respect of the Austrian private railways was to incorporate them into the Reichsbahn system in the shortest time possible. By the end of the war in Europe, the route length of the lines so absorbed totalled 296 miles, formerly owned by 13 railway companies. One of the last concerns to be taken over was the Mühlkreisbahn A. G., which owned and operated the 36-mile steam-worked line connecting Urfahr (on the northern bank of the River Danube, opposite Linz) with Aigen-Schlägel. Prominent among the lines incorporated into the Reichsbahn were the St. Pölten to Mariazell and Gusswerk standard-gauge electric railway, to the west of Vienna, 57 miles long; and the Vienna (Grossmarkthalle) to Gross-Schwechat and Petržalka standard-gauge electric railway 39 miles long. Before the dismemberment of Czechoslovakia in 1939, Petržalka was in that country, but was afterwards taken away from the Slovak puppet state and the region incorporated into Austria (Germany) because of its importance from the railway viewpoint. A 2-mile extension leads from Petržalka into Bratislava, while another line, leading across the Hungarian frontier in the immediate vicinity, connects with Hegyeshalom, the Hungarian frontier station on the Budapest-Vienna main line. Other Austrian privately-owned railways taken over by the Reichsbahn were the Reutte-Schönbichl link (9 miles) connecting the Garmisch-Partenkirchen to Reutte railway with the line from Kempten (in Bavaria); and the 4-mile Schafbergbahn connecting St. Wolfgang (to the south-east of Salzburg) with the summit of the Schafberg mountain.

Of the Austrian railways not involved in the process of "nationalisation," the most important were:—

Salzburg-St. Lorenz-St. Wolfgang-Bad Ischl, steam-worked, 39 miles long, owned and operated by the Salzkammergut-Lokalbahn.

St. Lorenz-Mondsee, steam-worked, 2 miles long, owned and operated by the Salzkammergut-Lokalbahn.

Vöcklamarkt-Attersee, electric, 8½ miles long, owned and operated by Stern & Hafferl Gesellschaft.

Lambach-Haag, electric, 16 miles long, owned and operated by Stern & Hafferl Gesellschaft.

Lambach-Gmunden, electric, 18 miles long, owned and operated by Stern & Hafferl Gesellschaft.

Linz a.D.-Niederspaching-Neumarkt-Kallham, electric, 34 miles long, owned and operated by Stern & Hafferl Gesellschaft.

Niederspaching-Peuerbach, electric, 2½ miles long, owned and operated by Stern & Hafferl Gesellschaft.

Vienna-Baden, electric, 16 miles long, owned and operated by Wiener Lokalbahn A.G. Jenbach-Mayrhofen, electric, 20 miles long, owned and operated by Zillertalbahn A.G., and connecting at Jenbach with the Innsbruck-Kufstein main line.

The Graz-Köflacher Eisenbahn-und Bergbaugesellschaft (Graz-Köflach Railway & Mining Company) owning and operating various standard-gauge lines to the south-west of Graz, the capital of Styria, where the company owns also extensive brown coal workings, was not taken over by the Reichsbahn but was absorbed by the German Hermann Göring industrial group. As a result, the company's name was changed to Steirische Bergbau-und Eisenbahn A.G. der Reichswerke Hermann Göring (Styrian Mining & Railway Co. of the Herman Göring Reichswerke). The company's system consists of the following lines, all of which are steam-worked: Graz-Lieboch-Köflach (25 miles); Lieboch-Pölfing-Brunn (29 miles); Leibnitz-Pölfing-Brunn-Wies-Eibiswald (15 miles); the system connects at Graz and at Leibnitz with the Vienna-Ljubljana main line.

Bückeburg to Aberayron

By R. J. Price

ONE may safely assume that very few people can ever have made a journey beginning at the obscure town of Bückeburg, in Westphalia, and ending at the equally obscure town of Aberayron, in West Wales. I happened to make it by reason of being a member of the occupying Air Force in Germany, proceeding on leave to the little Cardiganshire resort where my family was spending its summer holiday of 1945. It was 9 o'clock on a fine August morning when a crowd of us stood waiting on the low platform of Bückeburg Station for the arrival of the west-bound leave train from Hanover. Bückeburg is a very small town, but it is on the main line and its station is quite imposing; the building vaguely resembles an airfield control tower. The train arrived a little ahead of time, 14 heavy steel Reichsbahn centre-corridor coaches behind a large 2-8-2 locomotive of the "41" class. These are quite handsome engines, of rather cleaner lines than most German types. They have the usual bar frames and high-pitched boiler, but are not overloaded with external fittings. Driving wheels are of about 5 ft. 6 in. dia.

We scrambled aboard the train and settled ourselves into the hard wooden seats, an official in smart uniform waved his little "ping-pong racket," and the journey had begun. The 2-8-2 trundled her train along at a steady 40 m.p.h. or so. The country is pleasant hereabouts, and for some distance the line runs parallel with the chain of low wooded hills known as the Wiehen Gebirge. Turning south-west through a gap in the chain, we reached Minden, the first scheduled stop. Again only a small town, this time with a really large and impressive station. The architecture here is somewhat similar to that of the buildings lining the approach at Temple Meads, Bristol. Many different Reichsbahn locomotive types were outside the extensive running sheds; ten-coupled types were most numerous. Some of the largest and most modern 2-10-0s were weirdly painted in incredibly hideous shades of camouflage. To see one of the ancient little G.W.R. Dean 0-6-0s standing, neat and demure, among these strange latter-day monsters was a sight at once incongruous and heartening.

Away we went again, across the monotonous North German plain, and now there began to be plenty of evidence of the crippling effect of our air raids on the German railway system. The station at Munster, for instance, like the town itself, is a mere shell. Wrecks of trains and locomotives still stand where they were destroyed by bomb and rocket. Coaches, wagons, engines—what is left of them—twisted into fantastic shapes and positions, are here, there and everywhere. But for all that there still seem to be plenty of German locomotives about. It was most noticeable that whereas in Holland and Belgium the British Austerity 2-8-0s were ubiquitous, in Germany nearly all the work was still being done by German engines. The halt at Munster also gave one an insight into what travelling conditions are like for the German public. People at home in England have known something of what overcrowded trains can mean, during the past six years. But they can have little conception of what the very optimum of these conditions can be, and is, in Germany today. Trains are made up of all sorts and conditions of vehicle; the most fortunate travellers are those who find standing space in the open trucks. Covered vans are packed tighter than any tin of sardines ever was: those unable to crowd into them either lie on the roof or stand perilously on the couplings between the vans. Where ordinary coaching stock is available, the numbers massed into each compartment are simply incomputable

from the outside. A couple of such trains were standing at the platforms at Munster, and twice as many people again as they held were sitting patiently on the platforms, waiting for the next train to turn up.

At Munster we had exchanged our 2-8-2 for a " 50 " class 2-10-0, a type whose small driving wheels proclaim it to be purely " freight." She hauled us as far as Gennep, just inside Holland. The only feature of much interest between those two places was the crossing of the Rhine. The temporary bridge does not look very substantial, being based only on stout timber piles. But we crawled safely across it at a cautious statutory 5 m.p.h., which gave us ample opportunity for inspection, and photography, of the wreckage of the original bridge alongside. Gennep, reached about 6 p.m., brought a welcome break. We de-trained (the official term !) into waiting lorries, which jolted us to a rather dreary tented camp a mile or two away, for a hot meal. Standing in a long queue for it, under steady rain, is not one of the happiest memories of the journey ! The rain had ceased when we returned to our train, to find that it was now headed by a British W.D. 2-8-0. A leave train going in the opposite direction ran in while we waited here. It was hauled by one of the neat-looking " 37XX " class 4-6-0s of the Netherlands Railways —one of the rare glimpses of Dutch locomotives vouchsafed us on this journey. Soon after leaving Gennep came the most amazing experience of the day. For mile after mile through Dutch town, village and open country the lineside was thronged with people, from old men and women down to young children. Apparently this was a regular evening performance, for the train obligingly dropped to a speed of about 15-20 m.p.h. so that business could be effected. And the business was that in return for cigarettes dropped from the train into waiting caps and aprons, the linesiders threw up apples and pears for us to catch (in fact more often missed !).

Darkness fell before we reached the Belgian frontier, and on through the night our train took her languid way. Those wooden seats were by now instruments of torture : it is all but impossible to sleep sitting bolt upright on them. So one gazed out at the blackness and listened to the deep melodious note of our austerity's hooter and the asthmatic wheezing of her Westinghouse pump during the frequent inexplicable halts. One could not read—there were no lights. About 1 a.m. we ran into the Brussels suburban station of Schaerbeek, where hot tea was dispensed during a ten-minute stay. Schaerbeek is a surprising station. It comprises a small neat block of brick buildings, decorated with Kremlin-like minarets, and an inordinate number of platforms. Neither of the two principal Brussels stations, the Nord and the Midi, can compare with its efficient and spacious lay-out. Dawn found us somewhere in France, advancing steadily towards Calais, and at 8 a.m. we ran into that much desired haven. On shed there were numerous French locomotives in addition to the usual crowd of British 2-8-0s. Several Pacifics of both Nord and Etat lineage, were in evidence—and what grand-looking machines they are ! One was struck by the appearance of so many Nord 4-6-0s of the de Glehn period, a class of engine which has not received much publicity in the British railway press, compared with the related Nord 4-4-2s. We were hustled rapidly through the transit camp and within about an hour were marching through the pathetic remnants of the Gare Maritime, to board the s.s. *Princess Maud*. Another hour or so, and we were off Dover Harbour. Disembarkation seemed a slow business. From the deck one watched a "Merchant Navy" Pacific drift lazily along the track beside the wall of the Marine station, and little South Eastern tanks go snorting fussily about. At last the satisfying moment arrived when one sank gratefully on to an upholstered railway carriage seat. Only a traveller fresh from twenty-three hours in a continental third class coach can appreciate fully how comfortable these Southern open thirds are !

" King Arthur " 4-6-0 *Sir Pelleas* took us smoothly to London, *via* Folkestone, in just two hours. What a delight it was to see, and to ride over, a well maintained permanent way once more. It was precisely 1.30 p.m. when we ran into Victoria. Those of us who were hoping to catch the 1.55 p.m. South Wales from Paddington were a little anxious. We made a dash for it, *via* the Underground. The Paddington clock showed 1.52 as we ran up the stairs and across " the lawn " to No. 2 Platform. Time enough !

Then followed the old familiar tale, our "Castle" going well, out through Ealing, Slough, Maidenhead towards the West. How beautiful the countryside of the Thames Valley looked : English fields and hedgerows after the endless bare monotony of North Germany ! Then the Wiltshire Downs under the afternoon sun, Swindon and its tantalising glimpses of serried ranks of locomotives inside and outside the works, the long climb to Badminton and the controlled rush downhill from there to the Severn Tunnel, followed by the level run to Cardiff and the undulating one thence to Swansea. There, a little late, at about 7.30 p.m., we exchanged our " Castle " for a well-known " Star " 4-6-0, No. 4003, *Lode Star*. Behind this veteran flyer we had a most exhilarating run on to Carmarthen, despite the frequent stops. With a keen driver in charge, these short station to station runs can be quite thrilling. For the formidable climb to Cockett Tunnel *Lode Star* had the assistance of a 0-6-0 pannier tank, and the ill-assorted pair made a most vigorous and vocal ascent. After dropping the pilot, No. 4003 swept along in grand style, reaching speeds of over 70 m.p.h. when distances between stations permitted.

It was dusk when we made the desolate circuit—under this light—of the wide sands of Carmarthen Bay. The noble ruins of Kidwelly Castle and Llanstephan Castle could both be descried faintly through the gathering mists. The railborne part of my journey ended at Carmarthen. There is no onward connection to such an unimportant place as Aberayron so late as 9 o'clock of an evening, and a friend was waiting at Carmarthen with his car, to drive me over the thirty odd miles of road to Aberayron that night. The very beautiful rail journey up the valley of the Teify to Lampeter and from there down that of the Ayron to the sea at Aberayron I was only to experience, in reverse, as the beginning of my returning odyssey a week later.

Publications Received

Time Study and Rate Fixing. Edited by The Institute of Economic Engineering and based on lectures given by Prof. F. L. Meyenberg. London : Sir Isaac Pitman & Sons, Ltd., Pitman House, Parker Street, Kingsway, W.C.2. 8½ in. × 5½ in. 225 pp. Price 20s. net.—This book is the first publication of the Institute of Economic Engineering, founded in October, 1941. Economics and engineering are separate and fundamentally different entities ; yet their differences must be reconciled if each is to play its full part in modern industry. Engineering, based on the laws of mathematics, physics, and other branches of pure science, must compromise with economic considerations that involve a study of the human factor with all its complexities. Time study and rate fixing are based largely on the above compromise, and the work of Professor Meyenberg should prove of assistance to those engaged in turning these theoretical aspects of engineering to practical account.

The book is divided into five sections, dealing with, respectively : time analysis, rate fixing, time studies and investigation, the determination of working times in engineering works, and time study as applied to grinding-workshop practice. The book is illustrated by numerous charts and diagrams and is provided with a bibliography and index.

Trains. Published at 138, Rue Hotel-des-Monnaies, Brussels. Organ of the Belgian Association of the Friends of the Railway, 20 pages, 8¼ in. × 11⅝ in. Profusely illustrated. Price, 25 Belgian francs, but regular subscription cannot yet be entered.—This journal, which is very well produced, is intended to become a monthly, but the difficulties of obtaining paper, etc., oblige the promoters to issue it three-monthly at present. Although devoted primarily to the interests of the model maker, there is a section in each issue explaining ordinary railway subjects and the first four pages of the copy under notice give an account of the arrangements made in 1942 by the management of the Belgian National Railways for a general re-organisation of the locomotives and rolling stock. Belgian railway enthusiasts had to reduce their model work during the occupation to a great extent, and indeed their society's rooms were taken over by the Germans, and British military authorities have now moved in. The model maker in Belgium has no lack of interesting material to reproduce in that country's railway system, which possesses in all its departments its own peculiar characteristics. The Editor of *Trains* is Mr. F. Lebbe.

Ferobestos Technical Plastics.—We have received from Ferodo Limited, Chapel-en-le-Frith, Stockport, a booklet describing Ferobestos, a new product which this firm have put on the market. Ferobestos is stated to be a non-metallic laminated asbestos material, made in a number of standard grades in which particular properties are developed. Components made from this new material are available for use in mechanical, marine, and electrical engineering, and also the chemical industry.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Railway Wages

London, W.4. October 5

To the Editor of The Railway Gazette

Sir,—With regard to the correspondence under this heading which you are publishing in your columns, your correspondent, Mr. Savage, referred contemptuously to the gifts of a pair of hands and a brain with which Providence has endowed mankind. Most of the successful men, from my observation over many decades, have commenced from scratch and achieved success by a wise use of the valuable gifts in question. The present economic and social confusion in this country has been produced by abrogating these natural gifts for a policy of succour at the taxpayer's expense. During the economic chaos which followed the 1914-18 war the whole civil and industrial communities adopted the pernicious habit of resorting to the Government of the day for relief and aid instead of following the robust course of caring for themselves, and our good friends across the Atlantic have this fact recorded against us. Until we return to the sound doctrines of self-reliance, self-respect and self-help, which mean "the greater the effort the greater the reward," and not "something for nothing," the community will not recover from the slough of inertia and economic confusion into which it has regrettably fallen.

Yours faithfully,

"VIGILANT II"

The Evolution of the L.B.S.C.R.

Essex House, Essex Street,
Strand, W.C.2. September 22

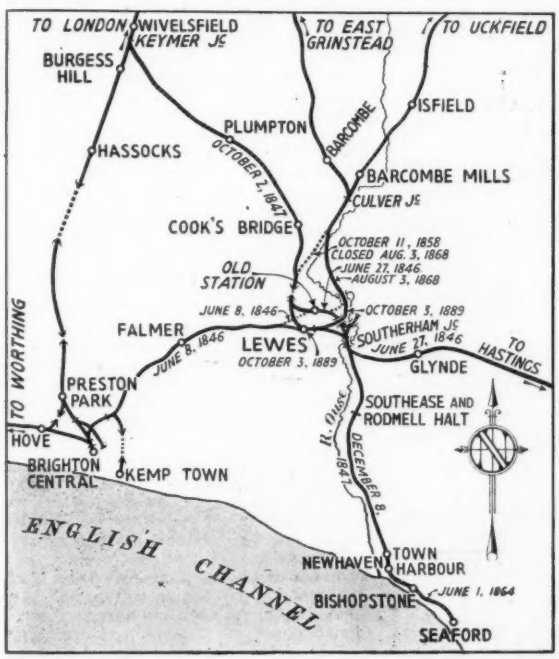
To the Editor of The Railway Gazette

Sir,—In the interesting map in your issue of September 21 showing the evolution of the London, Brighton & South Coast Railway, it happens that the date tag "Lewes to Uckfield, October 11, 1858" is fastened close to a portion of that line which was not opened until August 3, 1868. The original approach of the Lewes & Uckfield Railway to Lewes was from the north west *via* a junction with the L.B.S.C.R. Wivelsfield (or Keymer) line near Cook's Bridge. After the L.B.S.C.R. acquired the Lewes & Uckfield Railway in 1864, it built (under powers granted by an Act of 1865) and opened on August 3, 1868, a new section 3 miles 44 chains in length bringing the Uckfield line into Lewes from the north-east, and abandoned 2 miles 31 chains of the original route.

Your map shows the interesting fact that the London Chatham & Dover Railway got to Sevenoaks 6 years ahead of the South Eastern Railway, and, in showing the date of the completion of the S.E.R. short cut to Tonbridge to be May 1, 1868, reminds one that for nearly 7 years the L.C.D.R. had a route between London and Dover many miles shorter than that of the S.E.R. I am sure Canon R. B. Fellows could tell us whether the L.C.D.R. took any, and if so what, advantage from that fact on its time schedule.

Yours faithfully,

KENNETH BROWN



L.B.S.C.R. realignments at Lewes

Your map shows the interesting fact that the London Chatham & Dover Railway got to Sevenoaks 6 years ahead of the South Eastern Railway, and, in showing the date of the completion of the S.E.R. short cut to Tonbridge to be May 1, 1868, reminds one that for nearly 7 years the L.C.D.R. had a route between London and Dover many miles shorter than that of the S.E.R. I am sure Canon R. B. Fellows could tell us whether the L.C.D.R. took any, and if so what, advantage from that fact on its time schedule.

Yours faithfully,

KENNETH BROWN

[The first point raised by our correspondent refers to but one of the many and interesting railway realignments that have been made in the Lewes neighbourhood. The extraordinary complication there is such that it could not be depicted adequately on a general L.B.S.C.R. map of the scale we published, as was indicated in an inset note. We have prepared, however, the accompanying sketch (not to scale) to show the principal Lewes realignments, including that of the Lewes & Uckfield Railway.—*Ed., R.G.*]

G.N.R. Locomotive Numbers

146, Marlborough Road, Romford,
Essex. October 4

To the Editor of The Railway Gazette

Sir,—In the article in your September 28 issue on the L.N.E.R. "K3" locomotive conversion you state the number of the pioneer G.N.R. engine was 4000. This should be 1000. It was renumbered 4000 under the L.N.E.R. numbering scheme when 3000 was added to G.N.R. numbers.

I think I am correct in saying that no G.N.R. locomotive number ever reached 1700.

Yours faithfully,

H. BYGRAVE

Malines Railway Workshops

197 Indian Railway Maintenance Coy., I.E.,
Fazilka, N.W.R., India Command. October 1

To the Editor of The Railway Gazette

Sir,—The column on the Malines Railway Workshops in your August 3 issue requires slight correction to put it in its true perspective. The construction work on the second shed was entrusted to 8 Railway Construction Coy. R.E. (with which the writer was serving at the time), who were ably assisted by men of the 155 Railway Workshops Coy. R.E., and a company of the Pioneer Corps.

The foundations were started during a severe winter period which made excavation in the frozen ground difficult and the most elaborate precautions necessary in concreting. Fortunately the better weather arrived after a few weeks and work was able to go ahead normally.

The electrical installation and machine tools were installed by 155 Coy. as soon as the construction work was sufficiently far advanced, and the smoothness with which the whole work proceeded was due largely to the excellent degree of co-operation existing between the two companies.

Yours faithfully,

PHILIP REES,
Major, R.E.

Railway Troops

Frognal. October 5

To the Editor of The Railway Gazette

Sir,—Between the wars our railways co-operated with the War Office in raising Operating, Docks and Construction Companies for the Army Supplementary Reserve (Royal Engineers). Hundreds of our best railwaymen enlisted in their units and were called up when war was declared. Can you explain why little or nothing has been heard of their work with the Allied Armies during the past six years? America does things better. Your contemporary, the *Railway Age*, has published many articles about the performance of the Military Railway Service of the U.S. Army in Europe.

In its August 25 number, the *Railway Age* printed the text of an official report from Brigadier-General C. R. Gray, Director General, M.R.S., drawn up to show that the service does "furnish the necessary transportation." The report gives details of movements on a date as recent as June 7 last, when 1,219 trains, composed of 47,614 wagons, carried 529,275 tons. The figures cover 25,120 route miles, seven times as many miles as were planned for originally. This red-hot publicity must be of intense interest to the American public who may get the impression that their railway troops are running the whole show on the Continent.

Yours faithfully,

T. D.

Institution of Locomotive Engineers Presidential Address.—It was stated in an editorial note in our October 5 issue that Mr. Graf Baker's Presidential Address was delivered before the Institution of Mechanical Engineers; the address was given at the Institution of Mechanical Engineers before the Institution of Locomotive Engineers, as was stated in our report of the meeting on page 338 of the same issue.

The Scrap Heap

BADLY WANTED!

A Society for the Suppression of Societies.

* * *

On the question of travel comfort the railways are sounding public opinion. The wheel-tappers have at last decided their normal soundings are futile.—*From "Charivaria" in "Punch."*

* * *

During the four weeks ended September 23 the Southern Railway Waterloo telephone enquiry office dealt with 141,698 telephone calls as compared with 85,658 for the same period last year.

* * *

BRITISH RAILWAYS

You do so well so quietly and long,
We are astounded when a foot goes wrong.
So few the funerals, so large the loads—
Would we could say the same about the roads!

Sir Alan P. HERBERT in the "*Sunday Graphic*"

* * *

COMPOSITION OF RAILWAY BOARDS

The following table analyses the composition of the boards of the four group railway companies according to social rank :—

	Peers	Baronets	Knights	Esqrs., etc.	Total
G.W.R. ...	3	3	4	8	18
L.M.S.R.	5	4	4	5	18
L.N.E.R. ...	2	4	2	13	21
S.R. ...	4	—	6	6	16

Thus the most aristocratic railway board is the London Midland & Scottish, comprising five peers, four baronets, and four knights out of a total of 18 directors. The most "untitled" board is the London & North Eastern; 13 of its 21 directors being esquires, etc. Two railway directors are also Members of Parliament: G.W.R. one, L.M.S.R. one.

* * *

C.P.R. STATION MOVED HALF MILE

On the Canadian Pacific Railway main double line, the two-storey station building at Port Moody, in British Columbia, recently was moved bodily half a mile nearer to the centre of the town. The frame structure complete with all its fittings, furniture, and even its clock, was jacked up on to a timber crib, rolled laterally on to timbers laid across both up and down tracks, and skidded to a point abreast of its new site, where the rolling and jacking processes were reversed. The rails were greased, and, to assist in starting, a steam winch was used at first, but the main haul was by a steam shunting engine, at a speed of 2 m.p.h.

As possession of both tracks was necessary, speed was essential, and the estimated time allowed was 14 hr. Actually, the move was completed in only 7 hr., including lowering on to the new concrete foundations and connecting up of telegraph and telephone lines. It is stated that the whole proceedings went so smoothly that the clock never even missed a beat. The total weight of the building was about 75 tons.

* * *

The lean days have come back to the French railways again after a short spurt of comparative comfort.

On Sunday all cooking facilities on the *wagon lits* were suppressed to save fuel. The friendly attendant on the train that brought me from the south made lukewarm the coffee I gave him. "You would not even have that, sir," he said, "only I managed to get a bit of wood at a station."—*From "The Evening Standard."*

* * *

The following story, from "The Wayfarer" in the *Natal Daily News*, is quoted in a recent issue of the *South African Railways & Harbours Magazine* :—

The works manager of a certain railway company had a reputation for meanness. The pet bee in his bonnet was oil and waste. He was always driving home the fact that, if every employee was careful with oil and cotton waste, pounds would be saved.

One day he was having a few words with a very new driver.

"Tell me," he ordered, "what would you do if you were driving one day and you saw an express thundering through on the same line?"

The novice thought hard. Then:

"I'd grab the oil can, I'd grab the waste —and I'd jump!"

* * *

100 YEARS AGO

From THE RAILWAY TIMES, *Oct.* 11, 1845.

THAMES EMBANKMENT and RAILWAY JUNCTION COMPANY.

Chairman—The Earl of Devon.

The amount of the shares applied for in the above Company having greatly exceeded the required capital, NOTICE is hereby given, That no further applications can be received.

After the necessary inquiries, the Provisional Directors will immediately proceed with the allotment.

E. W. WILLIAMS, Secretary, *pro tem.*

Offices, 32, Charing-cross, October 8, 1845.

TO RAILWAY SURVEYORS AND ENGINEERS.—Wanted immediately, for different parts of England, from 20 to 60 good and thoroughly experienced Hands in Surveying, and others in Levelling different Lines of Railway. To men fully capable, from 2*l.* to 5*l.* per day and all expenses will be given.

Apply, by letter only, to C. E., care of Mr. Everett, Johnson's-court, Fleet-street, London.

RAILWAY QUESTIONS AND ANSWERS

Statement.—Under State-ownership, railway managements would be answerable to Parliament and in turn to the public. "Take it or leave it" is the attitude of the railways under private ownership.

Answer.—Railway managements are already answerable to Parliament in peacetime through the Minister of Transport, and to the public through the Railway Rates Tribunal, a court set up by the Railways Act of 1921. "Take it or leave it" has never been the attitude of the railways since in the years between the wars they had to face the fierce competition of road, sea, and air transport, and the private car. "Take it or leave it" is rather the attitude of State-ownership. If you don't wish to send your mail by the State-owned post office you can't send any mail! If you don't wish to listen to the State-owned B.B.C. programmes you must give up listening—or learn a foreign language.—*From "Answers to Questions and Statements," issued by the British Main-Line Railway Companies, 22, Palace Chambers, London, S.W.1.*

* * *

A thief who has broken into several railway stations in Wiltshire and Somerset recently, in each case has stolen the brass clock from the stationmaster's office.—*From "The Daily Mirror"*

* * *

"THE BANGOR MAIL"

With reference to the resumption of Travelling Post Offices on certain routes, a paragraph in *The Yorkshire Post* states that the York-Shrewsbury-South Wales T.P.O. is the oldest cross-country mail train in the country. It was originally known as the York-Bangor T.P.O., but more than 40 years ago it was diverted from the old Bangor route, going to Crewe and then through the Welsh Marches down to Cardiff. So great, however, is the force of habit, that some railway servants still describe it familiarly as "The Bangor Mail." From Shrewsbury to the West it has been operated by a staff familiar with Welsh topography and spelling.

* * *

Last week-end the return to Greenwich mean time necessitated altering 15,000 timepieces on the G.W.R. system alone. These include big clocks and little clocks, watches and time recorders in use at stations, in offices, signal boxes and some 6,500 watches used by guards, engine-drivers, and those of the staff concerned with the running of passenger and freight trains and steamer services. At Paddington some 600 electrically-operated clocks were altered by stopping the "master" clock for an hour—for G.M.T. to catch up.

* * *

The Southern Railway Company is very understanding about Mrs. Hilda Olsen, of Waterloo Station, who in the stress of work literally ran away from her job in charge of one of the main suburban departure indicators.

It was at about 7 p.m. on October 1, when the new train schedule was in full swing, that the big indicator board ceased to function.

"Is it true that this young woman, as she says, had been at the board for five hours without relief?" I asked a company official today.

"Yes," was the reply. "Coming on at 2 p.m. she is usually relieved for a break at 5 o'clock. The relief did not turn up. Mrs. Olsen had had to answer a perfect bombardment of questions about the new trains. We admit freely that certain new cards giving times and names of stations had not been given to her. That led to confusion.

"We understand her mental distress and her urge to get away from her difficulties."—*From "The Star."*

Team Work

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

SOUTH AFRICA

Railway Bed Services

Every bed in service on the South African Railways had to be laundered no fewer than eight times during July in order to meet the record-breaking demand for 158,285 beds. Regulations require that every bed must be sent for fumigation, laundering, and repacking, once it has been used. Last year 1,521,841 beds and 50,302 *de luxe* mattresses were hired by the public, and revenue from this source increased from £81,231 in 1938-39 to £270,286 in 1944-45.

These record figures are accounted for partly by the fact that South African families using the railways are tending more than ever to hire bedding rather than to bring their own blankets, and partly by the priority demands of military trains. When returning prisoners of war arrived at a Union port recently, 2,000 beds had to be provided at one time.

In spite of all efforts on the part of the railway administration, shortages occur, especially during school vacation periods such as July and December, when trains are crowded to capacity. The many passengers who call for beds only when they have boarded the train also make the question of supply more difficult.

Development at Port Elizabeth

Some £2,000,000 is to be spent on railway development in Port Elizabeth and on the Cape Midlands System. The Minister of Transport, Mr. F. C. Sturrock, who made this statement, added that much preliminary work had already been done, and some of the projects had been started. It was proposed to build at Port Elizabeth a new road-motor service station at an estimated cost of £350,000, a railway institute and health centre to cost £62,000, and new offices for the Port Goods Superintendent to cost £47,000.

In addition, yard facilities for the new station would have to be provided and the main passenger line would be moved nearer to the sea. The new loco. depot at Sydenham, on which work was started in 1941, would be finished towards the end of next year. The engine shed would hold 80 engines. A new marshalling yard was being built at Brighton and the Alicedale-Naauwpoort main line was being surveyed to eliminate steep grades and sharp curves. These improvements would cost at least £1,000,000.

KENYA & UGANDA

Demobilisation and Passenger Facilities

The principal effect of the end of the war in the Far East will be to increase to a still greater extent the strain on the passenger facilities of the Kenya & Uganda Railways & Harbours during the period when the demobilisation of the East African forces is in progress. It is expected that the greater part of the demobilisation programme will be completed in 1946. The new rolling stock placed on order during the General Manager's recent visit to the United Kingdom will not arrive in time to be of any assistance during this difficult period.

The locomotive spares position is improving, if slowly; but it will take many months to recover the ground which has been lost during the last few years.

Two cargo and passenger steamers of the Kenya & Uganda Railways & Harbours—the ss. *Usoga* and the ss. *Rusinga*—provide weekly round-the-lake services on Lake Victoria in addition to tug and lighter cargo services; and the ss. *Nyanza* is in full-time charter by the military authorities as a troop carrier. The demobilisation programme will involve the withdrawal of the *Rusinga* from public services: she is to be chartered by the military authorities on December 1 for some 10 months and will be converted for use as a troop carrier.

Military Traffic

All military, naval and air force traffic carried on the Kenya & Uganda Railways has been charged during the war at a flat rate of 8 cents (approximately one penny) per ton per mile except in the case of traffics on which the ordinary public rate is lower. As large tonnages of public traffic move at about 6 cents per ton per mile and export traffic at still lower rates a substantial tonnage of military traffic travels outside the flat rate. The flat-rate traffic is dealt with on a military rail note which combines the functions of the consignment note, goods invoice and delivery book; and, as all charges are worked out on Hollerith machines at headquarters, clerical and accounts work is greatly simplified by the use of the rail-note system.

During 1944 there was a reduction of 23 per cent. in the traffic carried at the military rate; but it would be incorrect to infer from this that the volume of military traffic was correspondingly reduced, for the far greater volume of traffic carried at public rates increased by 23 per cent. The dispersal during the coming year of the East African forces is bound to have an effect on the gross tonnages of traffic to be moved and the nature of that traffic.

Improvements at Nairobi

Considerable improvements are being carried out at Nairobi. A covered island platform a quarter of a mile in length which will be connected with the main platform by a 10-ft. subway is nearing completion. This will provide badly-needed additional platform space to handle the increasing number of passenger trains. The station yard, which includes the goods marshalling yards and sorting sidings, and which has been greatly expanded to cope with wartime traffic, is being provided with interlocked signals controlled from three cabins, Nairobi East, Nairobi Central and Nairobi West. Each cabin will be provided with an illuminated diagram showing the setting of the points. The first signal cabin is now nearing completion at Nairobi East. Up to now signals and points have been operated independently from ground-level frames.

UNITED STATES

Military Special Leave Trains

Special provision is being made by the railways west of Chicago for the conveyance of military and naval personnel on service or on leave. The Southern Pacific is running a train with dining and sleeping accommodation from Los Angeles at 5.25 p.m., one hour ahead of the "Golden State Limited," to Tucumcari, New Mexico, where it connects with Rock Island services to Chicago and Memphis; it arrives at Tucumcari, 1,216 miles distant, at 7 a.m. on the second morning. The return service is at 2.20 p.m. from Tucumcari, reaching Los Angeles at 1.30 p.m. on the second day.

A second Southern Pacific train runs between Oakland Pier (San Francisco) and Los Angeles by the coast line, at 4 p.m. southbound and 7 p.m. northbound, taking 15½ hr. Two or more sections daily are being operated of the "Los Angeles Challenger" and "San Francisco Challenger" of the Southern Pacific-Union Pacific-Chicago & North Western between both Los Angeles and San Francisco and Chicago; the "Olympian" (Chicago, Milwaukee, St. Paul & Pacific), "Empire Builder" (Great Northern-Burlington), and "North Coast Limited" (Northern Pacific-Burlington) between Portland, Seattle, and Chicago; and the "Californian" (Southern Pacific-Rock Island) between Los Angeles and Chicago. These are available also to ordinary passengers, but a second section of the "San Francisco Overland Limited" (S.P.-U.P.-C.N.W.) between San Francisco and Chicago may be used by Service passengers only.

Rock Island New Express

From August 5 the Chicago, Rock Island & Pacific Railway has been running a new daily express called the "Des Moines Limited." It includes air-conditioned coaches, parlour cars and dining accommodation, and leaves Chicago at 9.40 a.m.; the time allowed for the 358 miles to Des Moines, including stops, is 8½ hr. Between Chicago and Rock Island the new train carries a section for Dalhart, Texas, which previously operated as an independent departure, called "South-west Express," at 9.10 a.m. from Chicago.

New "Sunshine Eagle" Streamliners

The plans of the Missouri Pacific and Texas & Pacific for turning the "Sunshine Specials" into diesel-operated streamline trains have gone a stage further by the ordering of the stock required. As there are two long-distance workings in each direction, between St. Louis and Memphis in the north, and Dallas, Fort Worth, and Houston in the south, with connecting services to and from other cities, the orders call for no fewer than 100 new coaches. Of these 47 will be sleeping cars, all to be built by the Pullman-Standard Manufacturing Company, and 53 will be coaches, also baggage, mail, and express cars, to be built by the American Car & Foundry Company. Of this total 56 vehicles, including 28 sleepers, are to the order of the Missouri Pacific and the remainder are for the Texas & Pacific.

Thirteen diesel-electric power-units have been ordered from the Electro-Motive Division of the General Motors Corporation, comprising five 4,000 b.h.p. twin units and three 2,000 b.h.p. single units; all these, except one Texas & Pacific 4,000 b.h.p. twin unit, are for the Missouri Pacific Lines.

These divisions of stock are for accounting purposes, as the services will be worked jointly, and the Texas & Pacific, though independently operated, is a subsidiary of the larger company. There will be a considerable acceleration in the overnight runs of the main trains, and it will be possible for through passengers to reach San Antonio, Texas, before midday; the connecting service between New Orleans and El Paso, Texas, will also be speeded up. The new stock, which will cost $12,000,000, is scheduled for delivery in the spring of 1946, and the name of the service is to be changed to "Sunshine Eagle," uniformly with the Missouri Pacific "Eagle" streamliners.

All the 100 new vehicles will have underframes of high-tensile low-alloy steel; the mail, express, and baggage cars will have bodies of the same material, but for all the passenger cars aluminium bodies will be provided. On completion of these trains,

two further lightweight streamliners will be built for the Missouri Pacific, to run between Houston, Corpus Christi and Brownsville in connection with the "Sunshine Eagles," at a cost of $1,225,000.

VENEZUELA

Important International Air Line

An air service between Venezuela and Brazil was inaugurated on July 29 by the Linea Aeropostal Venezolana, a Government-owned line. The initial flight carried passengers and mail from Maiquetia, Venezuela, to Boa Vista, Brazil, where connection was made with the Brazilian company, Services Aereos Cruzeiro do Sul. The service will be continued on a once-a-week basis until growing traffic and the receipt of additional flight equipment justify a more frequent schedule. Negotiations for the establishment of this service began in 1939. The trip requires 2½ days each way. The route touches the following points in Venezuela: Maiquetia, Ciudad Bolivar, and Guasipati. In Brazil the route touches Boa Vista, Carmo, Moura, Manaus, Porto Velho, Porto Principe, Caceres, Cuiaba, Aragarcas, Rio Bonito, Uberba, San Paulo, and Rio de Janeiro. This is the first venture into regular international operation by the Linea Aeropostal Venezolana. Its plans call for further expansion, including a service to Colombia in collaboration with Avianca.

ARGENTINA

Accident on State Railways

A serious accident (briefly reported in *The Railway Gazette* of September 21) occurred early on September 9 on the Argentine State Railways line at Km. 1313, in the province of Jujuy, as a result of which forty passengers lost their lives and about sixty were injured. It was caused by the "Pan-American" express train from La Paz (Bolivia) jumping the rails, between Tres Cruces and Iturbe Stations, twelve metres above the bed of the Humahuaca River, which, fortunately, was dry at the time.

The run from La Paz had been normal, but, due to delays at stations after entering Argentine territory at La Quiaca, the train, which was made up of four sleeping cars, one second class carriage, one first class carriage, two luggage vans, one postal van and a dining car, was running over two hours behind schedule. It would appear that the driver had been trying to make up the time lost, and, on approaching the Humahuaca Valley, famous for its spectacular curves and its grades, that he did not diminish his speed within reasonable limits, with the result that the engine jumped the rails and plunged down the embankment, followed by part of the train. It is stated that the speed of the train at the time of the accident was between 60 and 65 km.p.h.

One of the uninjured passengers is Mr. A. P. Sexton, Deputy Manager of the Antofagasta (Chili) & Bolivia Railway, who, after 32 years in La Paz, was travelling to Buenos Aires for a business and vacation trip to England.

Wreckage of the "Pan-American" express, Argentine State Railways, which jumped the rails between Tres Cruces and Iturbe on September 9

CEYLON

Financial Position

Answering criticism of the Government Railway during the recent budget debate in the State Council, the Minister of Communications & Works said that the Railway Department had incurred a loss of Rs. 24 million from 1934 to 1941. It was unable to pay annuities from 1924. He emphasised, however, that from 1942 the Department had been working at a profit, and had been able to put into reserve Rs. 23 million.

Train-Service Improvement Prospects

The prospects of an early improvement in the passenger and goods train services on the Ceylon Government Railway are not encouraging. Mr. J. E. S. Bodger, Deputy General Manager of the railway, recently stated that "it all depends on the demands made on the Railway by the Services and the emergency departments engaged in the supply and distribution of foodstuffs."

The railway authorities were watching closely the volume and the trend of traffic, Mr. Bodger continued, in the hope that if there was a decline in the calls made on the railway by the Services and the Food Department they might provide the public with a better train service, even with the restricted material at their disposal. Unless there was a decline in the volume of this traffic, it was not possible to provide a better train service.

The probabilities are that there will not be a decline in the volume of priority traffic in the near future. As it is, the railway is transporting a larger volume of such traffic than it originally undertook. Apart from the normal routine traffic for such services the railway has been running on an average about three special trains a day for several months. The mileage of traffic covered by the railway last month is said to have been the highest on record, and the authorities hope that they have passed the peak of such traffic so that they may make a start with the planning of a peace-time train service. It is stated, however, that it will be a long time before all requirements in the matter of locomotives, wagons and carriages are supplied, as a good deal of the material now in use has to be replaced on account of having passed its scheduled period of utility.

FRANCE

Restoration of the Dijon-Bourg Line

The main line between Dijon and Bourg, which suffered heavy damage during the German retreat towards Belfort, was restored to traffic on August 24, after the completion of extensive repairs. This resumption of traffic improves railway communication between Paris and Savoy, as trains no longer have to use the round-about route *via* Lyons. Before the war, all the traffic between Paris (and beyond) and Italy *via* the Mont-Cénis route made use of the Dijon-Bourg section connecting, at Ambérieu, to the south of Bourg, with the Lyons-Culoz-Chambéry main line. Trains between Paris and Geneva (Cornavin) also used this line, branching off at Culoz for Switzerland. At present, also, the re-opening of the Dijon-Bourg section means a considerable shortening of the route between Paris and Geneva, and journeys between the two towns now take two hours less than previously.

POLAND

Depleted Rolling Stock

According to recent information from Warsaw the coaching stock of the Polish State Railways consisted of 3,854 carriages on August 1, 1945. In addition, there were 9,843 goods wagons. These totals are, of course, totally inadequate for a country like Poland. Before the war, the Polish State Railways owned 10,489 standard-gauge carriages and 153,394 standard-gauge goods wagons and vans, in addition to 313 carriages and 7,491 goods wagons on the narrow-gauge system. At the same time, municipal and privately-owned railway concerns owned 549 carriages (including motor-coaches) and 3,057 goods wagons. Particulars of the post-war locomotive position in Poland were published in *The Railway Gazette* on August 31, 1945 (page 217).

Coal Ferries between Gdansk and Sweden

An agreement concluded recently between Sweden and Poland provides for the resumption of the export of Polish coal to Sweden through the ports of Gdynia and Gdansk (formerly Danzig and now in Polish territory). To speed up the transport of coal, Sweden is to lend to Poland some 1,300 wagons, and a special coal ferry route is to be instituted between the two countries. The southern terminus of the route will be at Gdansk. A Swedish firm of contractors is to send 300 workmen to Gdynia and Gdansk to assist in the reconstruction of the port areas and to build the ferry basin at Gdansk. In addition, 50 Swedish railway workers are to be despatched to these ports to restore damaged railway plant. Polish exports from Gdynia are stated to have reached an average of 18,000 metric tons a day, 70 per cent. of which, however, is intended for Russia, while the balance is shared between Sweden and Denmark.

The Transport of Heavy and Indivisible Loads

Electrical design outstrips transport facilities

THE grave concern with which the British electrical industry views the restrictions imposed in the transport of exceptionally large and heavy loads, and the possibility of these limitations proving a serious handicap to manufacturers, were noted briefly in *The Railway Gazette* of September 14. The Traffic Committee of the British Electrical & Allied Manufacturers Association has had this difficult problem under consideration for some time; and the results of its investigations have now been published in a memorandum setting out the needs of the industry, and the shortcomings of existing transport facilities, both by rail and by road.*

For economic and technical reasons, the generation of electricity tends to be concentrated in large stations not necessarily sited at the centre of, or even in proximity to, the supply area. This development necessitates the transmission of electric power over considerable distances, and, for reasons of efficiency, this transmission is carried out at extra high voltages. At the present time, the "Grid" system in the British Isles operates at 132,000 volts, but greatly increased voltages are contemplated for extensions. It is understood that these schemes are in an advanced stage, and that contracts may be placed at an early date. Development overseas will be on similar lines; and in countries such as India, China, and the Soviet Union, where distances are exceptionally great, voltages up to at least 400,000 may be necessary.

For high-voltage transmission, it is not economic to use transformers of small capacity, and electrical designers are finding difficulty in connection with projected developments, not only by reason of the limitation of existing means of transport, but because transport departments in this country are unable to give any information as to the maximum size and weight of units that may be transported in the future. The overall dimensions of an electrical transformer are not limited by technical design, and any restrictions due to transport limitations would involve uneconomic factors, both as to higher capital cost, and increased maintenance charges. It is not practicable to transport transformers in parts for assembly at sites or ports. Methods of construction, and the necessity for adequate testing of the complete assembly, are such that little short of a fully-equipped works would be required at the site or port.

It is, therefore, obvious that the trend of electrical design is steadily towards indivisible loads with increasingly longer physical dimensions and weights. The following table gives the dimensions of typical large units for which transport will have to be provided in the course of the next few years:—

—	Length	Width	Height	Weight
	ft. in.	ft. in.	ft. in.	tons
Transformers ...	33 0	15 0	18 7	210
Armatures	22 9	15 6	15 0	90
Stators	24 0	13 0	13 0	150

Probably the most serious aspect of the problem is presented in the movement of transformers, where the overall width extends from the top to the bottom of the unit. In the case of armatures, the maximum width and height occur respectively at one point only.

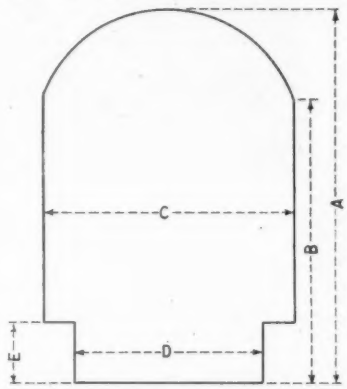
For loads of such dimensions, railway transport in the British Isles is out of the question. A small increase over the normal maximum width can be obtained by moving the load laterally *en route*, but the maximum permissable height is limited by permanent structures, such as overbridges and tunnels. Moreover, the provision of modern signalling apparatus, and additional island platforms have reduced the clearance on certain routes. After careful consideration of the problem, the railway companies recently have indicated the maximum dimensions for out-of-gauge loads that can be moved by specified routes to sites in Scotland; but these concessions, which would involve the construction of new rolling stock, fall far short of the requirements of the electrical industry. The London Midland & Scottish Railway Company has stated that these exceptional loads would involve severe passage restrictions north of Crewe, and that it would prefer to undertake transport by rail to a north-west port for shipment to the Clyde.

From the table below, reproduced from the memorandum, it will be seen that manufacturers in certain other countries do not suffer to the same extent from railway loading-gauge restrictions, although in no case do the maximum limits attain the dimensions required by the electrical industry. In the United States of America, however, steps are being taken towards the eventual establishment of a standard loading gauge, which will provide a height above rail of 22 ft., and a width of 16 ft.

Although no criticism of the railway companies is implied, it is generally realised that the facilities they offer are inadequate, and that the British electrical industry, in particular, will have to rely on road transport for its exceptional loads. Investigation has shown that it is now practicable, subject to the approval of the Ministry of Transport, to move units having maximum overall dimensions of approximately 30 ft. (length), 12 ft. (width), and 13 ft. (height), and up to 160 tons in weight. Although these limits are considerably in excess of those permissible with rail transport, they fail to give designers the scope required by projected developments. On the other hand, the limitations on road transport abroad are far less restrictive. Exact data are unobtainable; but it is known that loads approximating to, or even exceeding, the requirements of the industry, have been successfully handled in certain countries.

The memorandum concludes with a number of recommendations, which seek to overcome, to a great extent, the disadvantages under which the British electrical industry would otherwise labour. It is strongly recommended that existing highways should be improved by the strengthening of weak bridges, and that 20 ft. should be adopted as the minimum headway for overbridges. The impracticability of wholesale road reconstruction to accommodate special traffic is appreciated; but it is urged that any new arterial roads should be of sufficient strength and capacity to permit of unrestricted movement. Collaboration with the Electricity Commissioners should be sought at an early stage in the planning of new schemes, with the object of placing high-voltage substations along selected routes accessible by road. Movement to distant points might be facilitated by the use of coastwise shipping.

In the case of the export market, the problem is, perhaps, somewhat simpler. It may be practicable to confine the movement of exceptional loads to selected well-equipped ports, to which adequate approaches by road should be provided. The necessary port installations already exist at Liverpool, Birkenhead, Newcastle-on-Tyne, Manchester, London, and Glasgow. Facilities for export through additional north-east coast ports, such as Hull and Leith, would be of great advantage to those areas, and their development to enable heavy loads to be handled might prove more economical than road reconstruction from the north-east area to the Merseyside or the Clyde.



Principal dimensions of British and foreign loading gauges where height from rail level exceeds the British figure of 12 ft. 11 in. (See table below)

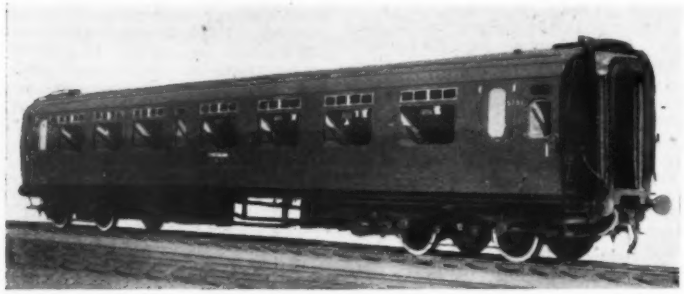
Countries	A	B	C	D	E
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
Great Britain	12 11	10 6	9 0	8 6	3 6
Australia	14 0	12 2	9 8	9 5	4 0
Brazil	14 0½	12 0½	10 1½	9 6½	3 8½
Chile	14 1	—	15 1	4 4	4 4½
Belgium	14 2	10 6	10 4	8 0	1 5
Spain	14 8	12 0½	10 6	—	4 3½
Argentina	14 8	9 11½	11 1½	10 8½	4 0
Switzerland	14 11½	10 6	11 6½	7 10½	1 3
Germany	15 3½	11 5½	10 4	8 0	1 5
China	15 6	10 10	10 2	10 0	3 0
Europe—Construction gauge—					
Principal railways	15 9	12 5	13 1	11 2	3 8
Poland	15 9	10 0	13 1½	10 10	3 8½
Sweden	15 9	11 3½	13 11	10 10	3 8
Mexico	17 1	13 1	12 0	13 2	—
U.S.S.R.	17 4½	13 0½	10 8	—	4 3½
Finland	17 9½	14 6	13 5½	11 10½	4 10½
U.S.A.	20 0	—	12 0	—	—

* "The Transport of Heavy and Indivisible Loads." London: British Electrical & Allied Manufacturers' Association, 36 and 38, Kingsway, W.C.2. 8¼ in. × 6½ in. 20 pp. Paper covers. Price 6d.

XUM

Southern Railway Post-War Passenger Coach

The first of a number now being built which incorporates several new features of design



AS was briefly recorded in our last week's issue, the first of the Southern Railway post-war passenger coaches has lately been on view to the public. A number of these vehicles is being built for use between Waterloo, Bournemouth and the West of England, and in due course they will be extended to other services. Several new features are incorporated in the design, and the public has been invited to inspect the coach, and to record its comments by means of question-and-answer forms of the type here illustrated.

The coach provides for four first class, and three third class, compartments, accommodating 48 passengers. Outside doors to the compartments have been eliminated, giving an unobscured view on one side through large windows. To avoid congestion at stations, intermediate doorways are provided between third and first class sections, in addition to doors at each end of the corridor. The length of the vehicle is 64 ft. 6 in., against 59 ft. before the war, and it is 3 in. wider than the company's pre-war coaches. By careful attention to detailed design, however, the weight is not correspondingly increased; for example, curved windows are provided fitting the shape of the curved sides, portions of which would have had to be thicker if flat windows had been used.

Hammock-sprung seating frames have been provided to support insert cushions, giving maximum luggage space under seats, reducing weight and facilitating cleaning. Portable tables can be fitted in compartments.

Diffused electric lighting is fitted in compartments, and there are electrically-heated foot-warming panels under the compartment floor rugs. These panels are of plastic $\frac{1}{16}$ in. thick and are supplied by Reinforced Plastics Limited.

The panels for floor heating at a wattage of 180-200, have been subjected to thorough tests. One panel of 180 watts was placed in such a position on the floor in a workshop that continued traffic of heavy barrows carrying accumulators and dynamos passed over it. A certain amount of sulphuric acid and water was spilled on to the panel, which, after three weeks, was both mechanically and electrically sound.

The coach is fitted also with steam heating.

A ventilation air-duct has been provided in the upper part of the corridor partition with which roof torpedo extractors are connected; an air grille is fitted in each compartment over the corridor doorway. Compartment corridor doors have inter-locking brushes to prevent draughts and sliding glass shutter ventilators are fitted to fixed outside windows of the compartments and corridor. The outside doors and corridor sliding doors have spring-balanced drop-windows.

Stainless steel is employed generally for fittings, and compartments are decorated with polished veneers of Empire-grown timbers. An example of the effect which often may be obtained by the use of simple materials is provided by the corridor panelling, for which teak from offcuts is used. Mirrors in compartments have been canted out of the vertical plane to reduce reflection to the passengers when seated. Electrical indicators direct passengers to the first and third class sections and to the lavatories, as well as indicating automatically whether the lavatories are vacant or engaged.

The exterior of the vehicle has been painted Southern Railway standard green without lining and with the usual lettering.

(*See illustrations on opposite page.*)

SOUTHERN RAILWAY

(Getting into its stride again)

A NEW CARRIAGE—*Tell us what you think of it!*

After nearly six years of war our carriages have become shabby, and to-day many have reached the end of their useful life. No new ones have been built, as our workshops have been making war equipment. Time, however, has been found to plan for the future, and this coach is the first of a number of post-war passenger vehicles which have been ordered for use on the Southern Railway.

They will run primarily between Waterloo and Bournemouth and the West of England. In due course their use will be extended to other services.

The Southern Railway invites you to inspect this coach and to say what you think about it. Do you like it? Are there any other improvements you would like to see? (N.B.—The actual coaches will have an S.R. system map in each compartment.)

Will you kindly record your remarks against the various headings shown hereunder and place the completed form in the box provided at the exit. If you prefer to complete at your leisure, will you kindly return the form in due course to the Public Relations Officer, S.R., Room 15, Waterloo Station, S.E.1

Thank you.

What I Like

Feature	*Remarks*
1. Seating (for general comfort, height, slope and position of arm-rests)	1
2. Lighting	2
3. Windows	3
4. Doors	4
5. Luggage	5
6. Ventilation	6
7. Heating	7
8. Fittings	8
9. Decoration	9
10. Mirrors	10
11. Lavatories	11
12. Any other remarks	12

WHAT I DON'T LIKE—SEE OVERLEAF→

What I Don't Like

Feature	*Remarks*
1. Seating (for general comfort, height, slope and position of arm-rests)	1
2. Lighting	2
3. Windows	3
4. Doors	4
5. Luggage	5
6. Ventilation	6
7. Heating	7
8. Fittings	8
9. Decoration	9
10. Mirrors	10
11. Lavatories	11
12. Any other remarks	12

Which type of coach do you prefer:—

A coach with compartments such as this,

or

One of the saloon type?

(Please place a tick against your preference.)

Name .....

Address .....

October, 1945.

Front (left) and reverse (right) of the questionnaire supplied to members of the public inspecting the new Southern Railway coach

Southern Railway Post-War Passenger Coach

(See article on opposite page)

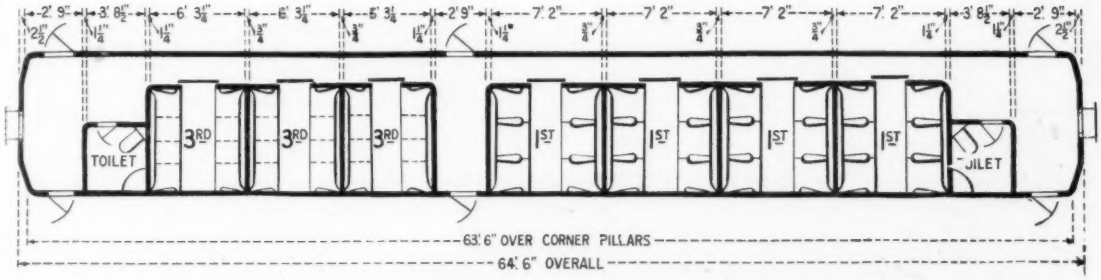
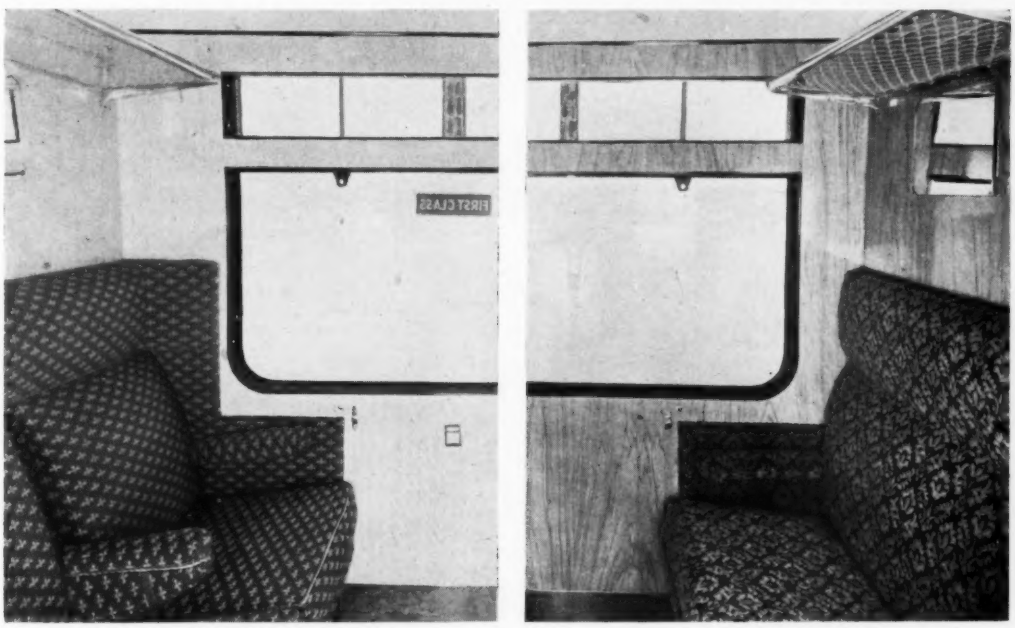


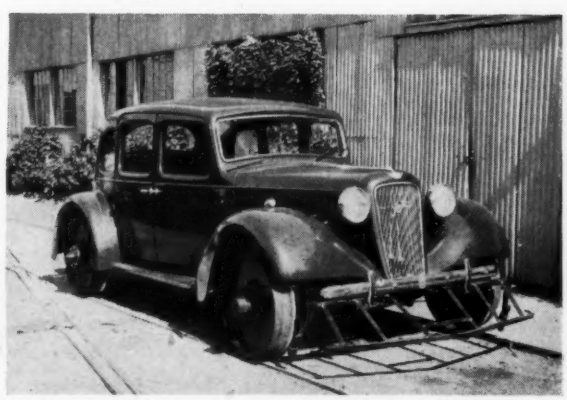
Diagram showing principal dimensions and arrangement of the Southern Railway post-war passenger coach



Interior of (left) first and (right) third class compartments of the new Southern Railway post-war passenger coach

Unusual Railway Vehicles in Argentina

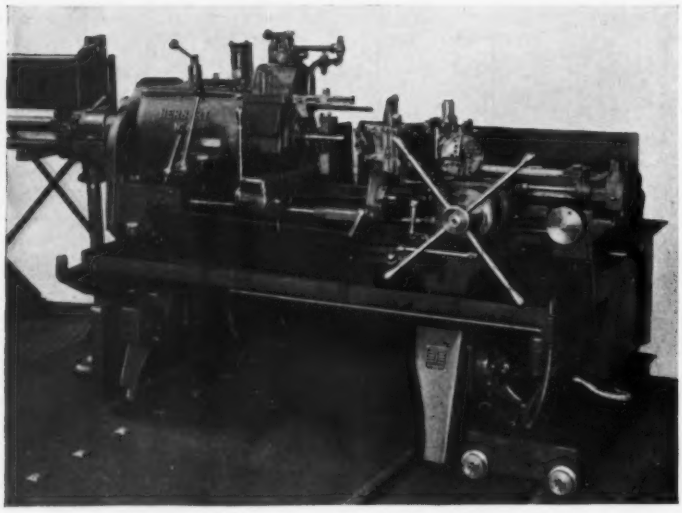
A cash office armoured car in use on the Buenos Ayres Great Southern Railway



An Austin motorcar adapted for track inspection on the B.A. Great Southern and Western Railways

Machining Locomotive Firebox Stays

A new Herbert lathe for the production of copper stays at high speed



MANY engine components, required in large quantities, justify the use of a special machine for their exclusive production. Copper stays for locomotive fireboxes provide a typical example, and as over a thousand stays are required for one engine, the large quantities involved will be appreciated. The required high rate of production in the manufacture of copper stays is attained by the new Herbert No. 4 copper-stay lathe, made by Alfred Herbert Limited, of Coventry. This lathe uses a combination of mechanical, electrical and pneumatic controls, which ensures high-speed operation. In addition, great accuracy is obtained without imposing any strain on the operator.

The bed, capstan slide, and, with few modifications, the headstock of this special lathe are the same as the standard Herbert No. 4 capstan lathe. To provide clearance over the capstan slide for the large diehead used, the roller-bearing headstock is raised $\frac{7}{8}$ in. The feeds are 30, 60, 90, and 120 cuts per in. The drive is by a self-contained two-speed motor mounted at the rear of the machine, which provides an instantaneous change from fast speed for turning and cutting off, to slow speed for threading, and *vice versa*. The speed changes are controlled by a drum-type switch operated by the capstan slide. This feature is patented.

The bars from which the stays are made are gripped in a 2-in. capacity Herbert air-operated dead-length bar chuck, controlled by a small lever-operated valve. When air is not available, a hand-operated chuck is used. Immediately the chuck is opened, the bar is fed forward to an adjustable stop in the capstan slide by a weight-operated pusher rod. The range of copper stays handled by the machine is from $\frac{7}{8}$ in. to $1\frac{3}{4}$ in. diameter and from 4 in. to $8\frac{3}{4}$ in. long. The threads at each end have to be in pitch and are relieved in the centre.

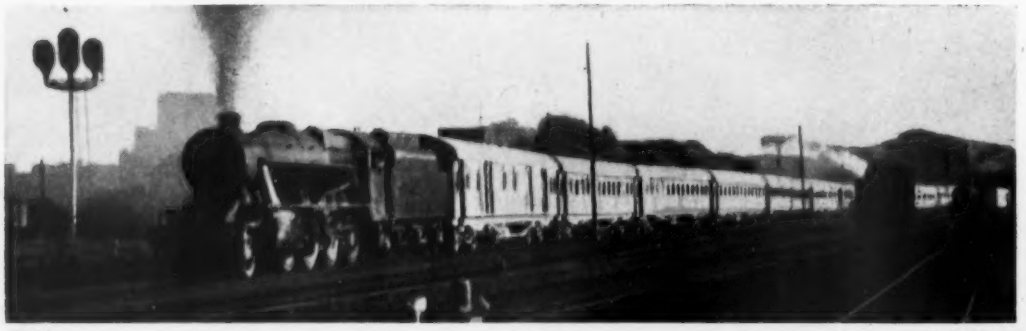
In the sequence of operations the bar is fed out first to a stop. In the second operation the capstan is withdrawn, bringing into position a special cam-operated roller-steady tool which traverses the length of the stay. The cutting tool is fed automatically in to reduce the diameter of the stay in the centre and is withdrawn by two adjustable stops on a horizontal bar immediately above the chuck. This bar is graduated to facilitate setting the stops for various lengths of stays. The feed is tripped by an adjustable stop on a hexagon bar in front of the capstan slide. The capstan is then withdrawn, bringing into position a Herbert $1\frac{1}{4}$-in. Tangel or Landmatic diehead.

In the third operation, before the diehead is brought into operation, one of the arms on a rotating disc attached to the rear of the hexagon stop bar engages with, and operates, a drum type switch in front of the bed, thereby slowing down the speed of the motor and consequently of the work spindle. A nut carried on a bracket attached to the capstan slide is now engaged with the leader on the front of the lathe by a small spring-loaded hand lever which is held in engagement by the operator. This feeds the diehead along the stay, controlling the pitch and carrying the dies over the recessed portion of the work.

On completion of the screwing operation, the leader nut runs into a gap on the leader, the motion of the capstan slide is arrested by a stop on the hexagon bar, and the diehead opens. The leader nut is thrown out of engagement with the leader when the lever is released by the operator. The capstan slide is now withdrawn, and when it is fed forward again to bring the adjustable stop, and work catcher, into position, the speed of the motor has been increased automatically by the drum-type switch.

In the fourth operation the stay is chamfered and cut-off by two tools carried on a lever-operated cross slide. Copper stays 1 in. diameter, 11 t.p.i., $5\frac{1}{2}$ in. long, are produced at the rate of 30 seconds each. The Tangel diehead can be fitted with an attachment on the closing ring, which strikes a plate (fitted to the top of the capstan slide) when the capstan is rotated, and automatically closes the diehead. There is an internal supply of cooling lubricant to the diehead, and adequate guards are provided to prevent splashing, and to collect and return the coolant to the tray of the machine. An extra suds tank is supplied with the machine, as copper contaminates the suds and it is necessary to remove the tank periodically for cleansing. This prevents dermatitis and other skin troubles which may occur when operators' hands come in contact with copper sulphate solutions.

Ex-W.D. Locomotives on the Egyptian State Railways



Photo] *[R. E. Tustin*

Ex-W.D. standard "8 F" class 2-8-0 locomotives are being used for working the Cairo-Haifa trains between Cairo and Kantara East. Above No. 865 is shown at the head of a train leaving Cairo Main Station

RAILWAY NEWS SECTION

PERSONAL

At his own request, Sir Alan Anderson has resigned his appointments as Controller of Railways, Ministry of War Transport, and Chairman of the Railway Executive Committee, with effect from September 30. The Railway Executive Committee will continue to function as the Minister's agent for control of the railways and the London Passenger Transport Board, and Mr. Alfred Barnes, Minister of War Transport, will himself become Chairman, delegating the day-to-day conduct of the committee to its Deputy-Chairman, Sir James Milne.

Sir Felix J. C. Pole, who, as announced in our October 5 issue, has relinquished the Chairmanship of Associated Electrical Industries Limited because of eye trouble, but who remains with the company as Deputy Chairman, was formerly General Manager of the Great Western Railway, which position he held from 1921 until 1929. He entered the Great Western Railway service in the Telegraph Department at Swindon in October, 1891, and after holding positions at Port Talbot and Truro, in January, 1893, he was transferred to the office of the Electrical (now Signal) Department at Paddington. From 1896 to 1904 he was

Sir Alan Anderson

Controller of Railways, Ministry of War Transport, and Chairman, Railway Executive Committee, 1941-45

Sir Felix Pole

Chairman, Associated Electrical Industries Limited, 1929-45, who becomes Deputy Chairman

Sir Alan Garrett Anderson, G.B.E., who, as recorded above, has resigned his appointments as Controller of Railways, Ministry of War Transport, and Chairman of the Railway Executive Committee, which he has held since 1941, was born on March 9, 1877. He was educated at Eton, a King's Scholar, and afterwards at Trinity College, Oxford. He rowed for Eton in an eight that won the Ladies' Plate at Henley in 1895, and stroked for Trinity College fours that won races in 1896 and 1897. His father was Mr. J. G. S. Anderson, of Anderson, Anderson & Co., and his mother Dr. Elizabeth Garrett Anderson, the first English lady doctor of medicine. After leaving Oxford in 1897, he entered the office of Anderson, Anderson & Co. (now Anderson, Green & Co. Ltd.), Managers of the Orient Line, of which he became a partner in 1900. He afterwards became also a Director and Deputy-Governor of the Bank of England. In 1916-17 he was Vice-Chairman of the Royal Commission on Wheat Supplies. During the war of 1914-18, he was Chairman of the Wheat Executive, which bought and regulated the supply of wheat and grain to Great Britain, France, and Italy, and for the arrangements in connection with this he went to America with Lord Balfour in 1917. In 1917-18, he was Controller in the Admiralty, and later was Vice-Chairman of the Food Council. He was created a K.B.E. in 1917, and G.B.E. in the Birthday Honours List of 1934. Sir Alan was President of the Chamber of Shipping of the United Kingdom in 1924-25; President of the Institute of Marine Engineers in 1928; President of the Association of Chambers of Commerce in 1933-34; and Chairman of the Cereals Control Board in 1939. He is a Director of the Suez Canal Company, Peninsular & Oriental Steam Navigation Company, British India Steam Navigation Co. Ltd., and Anderson, Green & Co. Ltd. (until 1935 he was also Chairman). He had been a Director of the London Midland & Scottish Railway Company since 1923, and previously of the Midland Railway, but he resigned from the board of the L.M.S.R. when, in 1941, he was appointed Chairman of the R.E.C., and Controller of Railways in the Ministry of War Transport. An announcement was made by the L.M.S.R. on October 9 to the effect that Sir Alan Anderson had rejoined the board of the London Midland & Scottish Railway Company.

attached to the personal staff of the Chief Engineer, and during that time became Editor of the *Great Western Railway Magazine*, which was one of the first staff magazines associated with the larger railway companies. At first it was conducted entirely in spare time, and when in 1904 it was taken over by the company and issued as an official publication, he was transferred to the General Manager's office. He remained responsible for its publication until early in 1919. Meanwhile he had become, in 1913, Chief Clerk to the General Manager, and in March, 1919, Assistant to the General Manager. On the appointment of Mr. Charles Aldington as General Manager in August of that year, he was appointed Assistant General Manager. He became General Manager in 1921, and relinquished that position in 1929 to become Chairman of Associated Electrical Industries Limited. He visited

the Sudan in November, 1923, to report on the Government Railways there, and returned in January, 1924. He received a Knighthood in 1924. Sir Felix Pole was Chairman of the General Managers' Conference of the Railway Clearing House in 1926, and in 1927 he was Chairman of the Board of Management of the Railway Benevolent Institution. He was an original member of the Coal Mines Reorganisation Commission, which was set up under the Coal Mines Act of 1930. In 1934 he accepted the invitation of the Government of Northern Ireland to advise them, in an honorary capacity, on the transport situation in Ulster and on the co-ordination of road and rail interests. In 1940 he was appointed a member of the Advisory Council for Scientific & Industrial Research. Sir Felix Pole's directorates, apart from companies in the Associated Electrical Industries group, include Airports Limited, Kennet Valley Nurseries Limited, Milford Docks Company, Reading Standard Limited, Tilbury Contracting & Dredging Co. Ltd., and Westland Aircraft Limited.

Mr. R. H. Jones, O.B.E., General Manager, Port of Bristol Authority, has retired after 51 years' service at Bristol Docks.

Mr. Roger Chitty, who, as announced in our October 5 issue, has been appointed Principal Assistant to the Solicitor, G.W.R., is a member of the well-known legal family of that name. Mr. Chitty was born on March 6, 1904, and educated at Eton and at King's College, Cambridge. He was then articled to Sir Robert Witt and was admitted a Solicitor in 1929; shortly after he joined the firm of Linklater & Paines, in which he became a partner in 1936. Mr Chitty joined the Army in 1940 and has held various staff appointments both in this country and overseas. He was promoted to the rank of Lt.-Colonel in 1943. Mr. Chitty has resigned from the firm of Linklater & Paines on his appointment with the company.

Mr. Roger Chitty

Appointed Principal Assistant to the Solicitor, G.W.R.

Sir Frederick Handley Page

President, Institute of Transport, for 1945-46

Sir Frederick Handley Page, C.B.E., F.R.Ae.S., who, as recorded in our June 8 issue, has been elected President of the Institute of Transport for 1945-46, is Managing Director of Handley Page Limited, founded in 1909 and the oldest limited company in Great Britain engaged in aircraft manufacture. Handley Page Limited designed and built the well-known "0/400" type large bomber, which formed the main equipment of our heavy bomber offensive in the 1914-18 war; and, in 1917-18, the four-engine "V/1500" type, built to bomb Berlin, one of which carried out the first direct flight between London and India in 1918. In the recent war, first the "Hampden" and later the "Halifax," designed by Handley Page Limited, and manufactured both by the company and by subsidiary firms, have played a large part in our bomber offensive. For commercial flying the "Hannibal" has been designed and built by the company; and the latest types announced are the "Halifax" civil transport and the "Hermes" cargo carrier. In 1919, Handley Page Transport Limited started its London-Paris air service, and later the London-Brussels service, with subsequent extension to Switzerland; in 1924 these services were merged in Imperial Airways. Sir Frederick Handley Page, who was knighted in 1942 for his services to aviation, is a Vice-President of the Royal Aero Club, a Vice-Chairman of the Air Registration Board, and is on the management committee and council of the Society of British Aircraft Constructors, of which he has been twice Chairman; he was also its first President. He is President of the Royal Aeronautical Society, as well as of the Institute of Transport; he is a former Vice-President of both bodies. He is Past-Master of the Worshipful Company of Coachmakers & Coach Harness-makers.

We regret to record the death on October 5 of Mr. Ivan Crisp Brown, formerly Electrical Engineer, Oudh & Rohilkhand Railway, who retired in 1922.

Lord Kennet of the Dene has been elected Chairman of the Imperial Bank of Iran, in succession to Colonel Sir A. Henry McMahon, who has retired from the Chairmanship but remains on the board. Lord Kennet is a Director of the Southern Railway Company.

William Sugg & Co. Ltd. announces that Mr. P. Crawford Sugg, Director, has returned after some years' service with the Royal Air Force, and is now controlling the Sales and Technical Departments of the Company.

Mr. F. A. Walker, who has been Acting Secretary of the Passenger Vehicle Operators' Association, has been appointed chief executive officer, with the title of National Secretary.

Lord Leathers, who was Minister of War Transport in the last Government, has been appointed a Director of the Westminster Bank Limited.

Mr. J. W. Norris, A.C.G.I., A.M.Inst.C.E., A.M.I.Mech.E., has been appointed Chief Inspecting Engineer, Crown Agents for the Colonies in succession to Mr. W. E. Hogg, C.B.E., A.R.C.Sc., M.Inst.C.E., who retires on October 20, 1945. Mr. Norris was born in 1890, and after serving his apprenticeship with a well-known firm of mechanical engineers, completed his education at the City & Guilds Engineering College of the Imperial College of Science, London; he served in the Royal Engineers in the 1914-18 war, attaining the rank of Major in command of a Field Coy., R.E. Mr. Norris subsequently joined the staff of the Crown Agents as an Assistant Engineering Inspector, and has been Deputy Chief Inspecting Engineer since 1929.

Mr. J. W. Norris

Appointed Chief Inspecting Engineer, Crown Agents for the Colonies

London Passenger Transport Board

The London Passenger Transport Board announces that :—

Mr. T. E. Thomas, C.B.E., the General Manager, will retire from the service on October 20, at his request.

Mr. J. H. Parker, the Chief Electrical Engineer, is retiring on grounds of ill-health.

Consequent upon these retirements, the board has made the following appointments to take effect on October 20 :—

Mr. S. R. Geary, O.B.E., at present Operating Manager (Central Buses), to be General Manager (Road Services), responsible for all road services, including both Operating and Mechanical Engineering Departments.

Mr. G. F. Sinclair, C.B.E., at present Chief Engineer (Trams & Trolleybuses), to be Deputy General Manager (Road Services).

Mr. A. A. M. Durrant, C.B.E., at present Chief Engineer (Buses & Coaches), to be Chief Mechanical Engineer (Road Services) responsible for the Road Mechanical Engineering Departments.

Mr. P. Croom-Johnson, at present Chief Engineer (Civil), to be Chief Engineer and responsible for both the Civil and Electrical Engineering Departments.

The Right Hon. Lord Royden, C.H., Chairman, London Midland & Scottish Railway Company, has agreed to be President of the Railway Benevolent Institution for 1946, and Sir James Milne, K.C.V.O., C.S.I., General Manager, Great Western Railway, has consented to act as Chairman of the Board of Management for that year.

Territorial titles of the baronetcies recently conferred in the Resignation Honours include those of :—Sir Harold Paton Mitchell, Bt., of Tulliallan in the County of Fife and of Luscar, Alberta, Canada, a Director of the L.N.E.R.; and Sir George Steven Harvie Watt, Bt., M.P., of Bathgate in the County of Linlithgow, a Director of the Great Western Railway.

Sir William Larke, K.B.E., has been released by the Minister of Supply from his post of Controller of Non-Ferrous Mineral Development. Correspondence should now be addressed to the Non-Ferrous Mineral Development Section, Raw Materials Department, Ministry of Supply, Selection Trust Buildings, Masons Avenue, Coleman Street, London, E.C.2.

Sir George Paget Thomson, F.R.S., has accepted an invitation to become President of the Junior Institution of Engineers for 1945-46.

We regret to record the death on September 29, at the age of 87, of Lt.-Colonel Angus John Beaton, C.M.G., M.Inst.C.E., Assistant Engineer-in-Chief, South African Railways & Harbours, 1910 to 1921.

Mr. G. A. Baxter has been appointed Transport Officer to the National Farmers Union in succession to Mr. F. L. Sabatini. Mr. Baxter, who was educated at the South West Essex Technical College and the London School of Economics (University of London), joined the L.M.S.R. in 1929, gaining experience at goods depots, and in the Chief Goods Manager's office at Euston. In 1933, he was transferred to the Chief Operating Manager's department and until 1939 served on the goods modernisation committee. In 1939, Mr. Baxter was seconded to the Ministry of Food and was appointed Transport Officer of the Potato & Carrot Division of the Ministry.

Sir Edward Benthall, who has been in Great Britain, left on October 5 by air for India to resume his work as War Transport Member of the Viceroy's Executive Council.

The retirement has taken place of Mr. D. James, until August 20 last Electrical Engineer, Southern Area, Kings Cross, L.N.E.R., and since engaged on special duties in the Chief Electrical Engineer's Headquarters Office.

Mr. Charles E. Lee, A. M. Inst.T., who, as recorded in another column, has received a Railway Companies' Association Award of £40 for his paper on "Passenger Class Distinctions", presented to the Institute of Transport during the 1944-45 session, is an Associate Editor of *The Railway Gazette*.

The Ministry of Aircraft Production has announced that, subsequent to the introduction of the simplified control procedure for light metals, Mr. G. W. Lacey has relinquished his appointment as Controller of Light Metals, to rejoin the British Aluminium Co. Ltd. He is succeeded by Mr. C. G. McAuliffe.

Dr. J. H. Chesters, of the Central Research Department, United Steel Companies Limited, has been awarded the degree of Doctor of Technical Science by the University of Sheffield, for his outstanding researches on refractories. Dr. Chesters' book entitled "Steelplant Refractories," was published by the United Steel Companies in January this year.

BRITISH-ARGENTINE RAILWAY COUNCIL

Viscount Davidson (Acting Chairman of the British-Argentine Railway Council) entertained to luncheon at the Savoy Hotel on October 5 the following members of the Argentine Press Delegation; Señor Quiliano Anta Paz (*La Prensa*, Buenos Aires), Señor Mujica Lainez (*La Nacion*, Buenos Aires), Señor Nesta Joaquin Lagos (*La Capital*, Rosario), Señor Juan Remonda (*La Voz del Interior*, Cordoba), and Señor Enzo Vittori (*El Litoral*, Santa Fe). Others present included :—

The Argentine Chargé d'Affaires, Señor Don Ricardo J. Siri, Sir Eugen Millington-Drake, Sir William McCallum, Mr. J. A. Goudge, Mr. W. Howard-Williams, Mr. H. C. Drayton, Mr. B. H. Binder, Lt.-Colonel R. T. Harper, Mr. A. S. Matthews, Mr. C. Bock, and Mr. Haven.

THOMAS LEIGH MATTHEWS

We regret to record the death, at 25, Melbury Court, Kensington, London, after a long illness, at the age of 65, of Mr. Thomas Leigh Matthews, O.B.E., M.Inst.C.E. He was educated at Dulwich College, and joined the firm of Coode Son & Matthews, Consulting Engineers, of Westminster, subsequently becoming a junior partner: he was associated with new harbour works at Dover, Folkestone, and elsewhere. After being engaged at Westminster on the planning of docks and other installations at Singapore, he went to the Far East to supervise the construction of the new works. During the 1914-18 war his services were lent to the Ministry of Munitions, and he subsequently represented that Ministry in India. The latter part of his career was spent in a private capacity as a Consulting Civil Engineer in Calcutta. Mr. Matthews leaves a widow.

Cable & Wireless Limited announces that Rear-Admiral G. P. Thomson, on the termination of his appointment as Chief Press Censor, has accepted an appointment with Cable & Wireless Limited as from December 1. He will undertake duties connected with the handling of Press traffic. Air Vice-Marshal C. W. Nutting, formerly Telecommunications Adviser to the Minister Resident in the Middle East, also has accepted an appointment with the company and will undertake special missions abroad.

The following announcement appears in *The London Gazette* of September 14, under the heading of Army in Burma Reserve of Officers :—

Lt.-Colonel J. D. Lewis (411 A.B R.O.) relinquishes his commission on account of ill-health, June 6, 1945, and is granted the honorary rank of Lt.-Colonel (Substitution for the notification in the *Gazette* of June 8, 1945).

Mr. Lewis, formerly District Locomotive Superintendent, Burma Railways, recently was appointed General Manager of the Darlington Works of Robert Stephenson & Hawthorns Limited.

Mr. J. G. W. Pawlyn has joined the board of Ransomes, Sims & Jefferies Limited.

INSTITUTE OF TRANSPORT AWARDS

At the inaugural meeting on October 8 of the 1945-46 session of the Institute of Transport, the retiring President, Mr. Robert Kelso, announced the awards made by the Council this year, and presented them to those in attendance, as follow :—

Institute Award of Merit : to Sir Cyril Hurcomb, K.C.B., K.B.E. (Past-President) for his paper on "Co-ordination of Transport in Great Britain during the years 1935-44."

Silver Jubilee Scholarship and F. C. Coleman "Modern Transport" Award : to Major Adin Hull, A.M.Inst.T.

Railway Companies' Association Awards : (i) £40 to Mr. D. Campbell (Associate) for his paper on "The Empirical Forecasting of Railway Traffic"; (ii) £40 to Mr. Charles E. Lee, A.M.Inst.T., for his paper on "Passenger Class Distinctions."

Road Transport (Passenger) Medal : to Mr. A. B. B. Valentine, M.Inst.T., for his paper on "Passenger Fares: Economics or Tradition ?"

Sir Alfred Read Award : £25 to Mr. R. I. Cowan (Student) for his paper on "Our Smaller Coasters and their Work in Peace and War."

Canal Association Award : to Mr. W. Fraser, A.M.Inst.T., for his paper on "Inland Water Transport."

Institute Shipping Award: to Mr. A. G. Course, A.M.Inst.T., for his paper on "World Communications."

Institute 1944 *Award :* to Mr. M. A. Cameron, M.Inst.T., for his paper on "Personnel Management as a Factor in Transport Efficiency."

Institute Graduate Award : to Mr. A. F. Wallis for his paper on "Cross-Country Rail Services in Great Britain."

Institute Student Award : to Mr. D. W. de Vos for his paper on "Railway Maintenance Engineering."

"Modern Transport" Award : to Mr. P. W. R. Marston-Clark (Graduate) for his paper on "Modern Remedies for Road Accidents."

Bristol and White Smith Air Transport Prize : £10 to Mr. J. F. Parke (Student) for his paper on "Co-ordination of Air and Surface Transport."

The Future of the Air

Abstract of Presidential Address by Sir Frederick Handley Page, C.B.E., before the Institute of Transport

In the course of his presidential address before the Institute of Transport on October 8, Sir Frederick Handley Page said that a great honour had been done him in electing him President. It might be symbolical of the years to come that, in this victory year when "all things are become new," the President should be representative of those interested in that new thing, air transport and its future.

Years ago, British air transport had started as a private enterprise, and, unbacked by subsidy or Government support, carried the major portion of the passengers who were beginning to travel by air. Alas, in an endeavour to redress the unfavourable traffic division, a foreign government had initiated subsidies for its own air-transport services, which were in direct competition with our own, to an extent that made unsubsidised operation a losing proposition. In self-protection we had had to adopt a system of state aid in the form of subsidy, leading inevitably to state control. It had always seemed to him a paradox that a service, which because of its high speed and charges seemed to cater primarily for the few, should be acclaimed as an activity which the many should help to pay for by subsidies from taxation—a curious inversion of logical, political, and economic theory.

Sir Frederick Handley Page next referred to developments in the design and construction of aircraft, and then gave some account of the part played by air transport during the war. Among examples of wartime achievements he mentioned the eighteen locomotives which had been flown in sections by 27 aircraft from America to India in less than 48 hours.

Continuing, Sir Frederick said that a study of the increase in passengers and cargoes carried by British railways between 1865 and 1922, and in the tonnage of registered shipping from 1914 to 1925, revealed a relatively slow start succeeeded by a period of extremely rapid growth lasting 40 to 50 years before the curve flattened out. Up to the outbreak of war, although regular world air route mileage had grown a thousandfold in twenty years, traffic airborne had not indisputably entered an expansion period comparable with the railways and the shipping lines.

During the war the entire resources of British civil aviation had necessarily to aid the war effort, and the operations of the British Overseas Airways Corporation to and from this country, and in other parts of the world, had been severely handicapped by considerations of military safety. It was very encouraging to record, in spite of these difficulties, that in 1944-45 the B.O.A.C. had increased the passenger-miles and freight ton-miles by over 500 per cent. as compared with the results in 1940-41. Aircraft mileage flown had increased about three times, and hours flown about about two and a half times, so that there had been a considerable improvement in load carried a trip and in cruising speed.

Civil aviation in the U.S.A. had continued to function as such during the war instead of under such great handicaps as British civil aviation had, and, therefore, more complete figures were available. In the U.S.A. in 1940, air travel had amounted to 1,000,000,000 passenger-miles, and Pullman travel by rail to 7,000,000,000 passenger-miles. Inter-city coach travel by rail was just under 13,000,000,000 passenger-miles. Travel by bus was 11,000,000,000 passenger-miles.

In 1942 air travel had risen to 1,389,000,000 passenger-miles and in 1943 to 1,632,000,000. It was now about 3,000,000,000 passenger-miles. It had been forecast to reach 7,000,000,000 passenger-miles by 1950, a sevenfold increase in ten years, and equivalent in total to that of the 1940 Pullman traffic.

The corresponding figures for rail and bus had shown even greater increases in the same period, but various wartime factors, such as the restriction on use of private passenger cars, had affected the totals and the comparison. The extrapolation of the pre-war curves was, therefore, not a sure enough basis on which to assess post-war probabilities and made it difficult to judge whether or not the beginning of a "forty-year period" of air-transport expansion started in Great Britain and the U.S.A. in 1933-1935, as some signs would seem to indicate. As a further comparison between rail and air transport, in the first five months of 1945, 132 first-category American railway companies had a net income of $261,414,000, an increase of 0·6 per cent. over the corresponding figures of 1940; the similar figure for sixteen of the major airlines was $6,459,000, an increase of 70 per cent. over the corresponding 1940 period, for the first four months of 1945.

Air and Railway Passenger Fares

We had already reached a stage where air passenger costs were getting very close to first class railway fares. In support of this statement Sir Frederick quoted from a table recently published in an American magazine, comparing railway and air fares between United States cities, which showed the air fares to be the cheaper for many journeys.

Touching on the question of safety, Sir Frederick pointed out that the wartime developments in radar for the first time provided the airliner with a method of feeling and finding its way which in efficiency at least equalled, and probably surpassed, the signalling system of the railways.

In conclusion, Sir Frederick asked what would be the relation of air transport to other forms of transport? The question must be faced without prejudice, and answered in the interests of the community. Clearly, the aeroplane must exert profound influence on the future of surface transport; he had particularly in mind the first class mail and first class passenger traffic. Every reduction in aircraft operating costs, every improvement in aircraft efficiency, would widen the range of the aeroplane's competition with ship and train.

There was much scope for air transport even in the British Isles, now that radar was making the airliner independent of the weather. There was really no fundamental reason for all traffic to be routed along the railway lines. The existence of London as a great centre of radiation of rail services tended to put our minds in blinkers, and we found it difficult to envisage alternative routes. We must not forget, too, that the perfection of the helicopter would notably influence our ideas of travel within these islands. A vehicle which could land or take off almost anywhere and was yet capable of speeds far higher than any surface vehicle must oblige a new approach to internal air services.

Shipping married naturally with the air, although sea routes were not necessarily the best air routes.

Clearly, the three forms of transport were linked—for better or for worse. He saw great need for flexibility of mind and imagination on the part of rail and shipping operators. They must not think for a moment that they could ignore the air and thereby freeze it out. The role should be that of partners, not of antagonists.

His purpose had been served if it had revived or created among his hearers an abiding interest in air transport. This was the Air Age, though only its beginning. The role of Great Britain and of the British Commonwealth was to make the new age predominantly British, as our ancestors had made the Shipping Age. In doing so we could claim to be serving humanity. The British race had always shown outstanding genius in the art and science of transportation, and that genius had served the world community well. It could continue to do so in the field of the air.

The Institute of Transport, true to the high aspirations with which it had been founded, could do much to inspire British transport operators and British air-transport engineers to achieve and maintain world leadership in the art of peacetime transportation—just as surely as the spirit of the nation buoyed up our Services, our designers, and engineers who gave us the world's most effective weapons of air war.

Society of British Paint Manufacturers Limited

A number of leading manufacturers in the British paint industry recently has formed the Society of British Paint Manufacturers Limited, to establish united action for the benefit of its members and deal with matters of interest affecting the paint industry. The Society is forming consumer divisions, with affiliation to the trade associations representing the consumers concerned. In this way a liaison will be formed between consumers and manufacturers for the discussion of common problems.

The Society intends to resist monopolistic tendencies of restraint on material, to resist at all times interference with free enterprise, and to serve the national interest by co-operation with all government departments and with other organisations within the industry. The administration of the Society will be on a national basis, and there will be no trade union status. The Society aims at good labour relationships with the institution, within the structure of member firms, of means of advancement for employees, educational facilities, and also the provision of pensions.

The founder members, consisting of small, medium and large firms, represent a strong element within the industry, and have important overseas interests. Price, Waterhouse & Company has assessed that these firms give employment to 8,500 people.

At the present time, a widely spread public investment, amounting to £19,000,000, forms a part of the total capital of the founder members.

The First British Post-War Timetables

London Midland & Scottish Railway

In the new L.M.S.R. timetables, operative from October 1, there are several important additions to the long-distance services over the Midland Division. These include the 11 a.m. from St. Pancras to Manchester, calling at Kettering, Leicester, Derby, Matlock, Miller's Dale, and Chinley, and due in Manchester Central at 3.52 p.m. This train has a restaurant car to Derby, which returns on the 2 p.m. from Manchester to St. Pancras. There is a new up express from Manchester Central at 10.45 a.m., calling at Miller's Dale, Matlock, Derby, and Leicester only, but not arriving until 3.50 p.m., and taking as much as 2 hr. 20 min. for the 99 miles from Leicester non-stop. A new dining car express leaves St. Pancras at 5.58 p.m. for Bedford, Kettering, Nottingham (8.42 p.m.), Chesterfield, Sheffield (9.53 p.m.), Leeds (10.53 p.m.), and Bradford (11.48 p.m.); the restaurant car returns on the 10.8 a.m. from Bradford to St. Pancras. In the up direction a new train is also provided by running the 10 a.m. from Glasgow in advance of the Edinburgh section, non-stop from Carlisle at 12.41 p.m. to Leeds (3.13 p.m.); leaving Leeds at 3.22 p.m., this express calls at Sheffield, Nottingham, and Kettering, and reaches St. Pancras at 8.20 p.m. Both this train and the 10 a.m. from St. Pancras to Glasgow (unaltered save for the omission of the Melton Mowbray stop) are provided with restaurant cars. In the reverse direction, the 9.5 a.m. from St. Pancras to Sheffield takes over the Edinburgh section of the 10 a.m., and is extended from Sheffield to Leeds (1.53 p.m.), from which it runs non-stop to Carlisle (4.32 p.m.), and reaches Edinburgh at 7.21 p.m. These 113-mile runs in each direction between Leeds and Carlisle are the first 100-mile non-stop runs to be scheduled over Midland metals for six years. There is a new train from Bristol at 9.5 a.m. to Sheffield (2.9 p.m.), Leeds (3.15 p.m.), and Bradford (3.52 p.m.), calling at principal intermediate stations. By omission of certain stops south of Birmingham, the 1 p.m. from York (4.5 p.m. from Derby) is due in Bristol 26 min. earlier, at 7.52 p.m.; this train carries a restaurant car from Derby, which returns to Derby on the 10.30 a.m. from Bristol.

Running times over all the L.M.S.R. main lines are maintained practically unchanged, with the exception of the 7.20 p.m. Euston to Inverness express, and the passenger trains in Scotland run in connection with the West Coast postal service. The former is due in Inverness at 8.35 a.m., which is 75 min. earlier than the 9.50 a.m. arrival in pre-war winters of the 7.30 p.m. "Royal Highlander" from Euston. The 8.30 p.m. postal train from Euston, which attaches at Stirling a passenger portion from Glasgow, reaches Aberdeen 63 min. earlier, at 8 a.m. (as compared with the pre-war 7.52 a.m.); the 95 min. allowance for the 89·7 miles from Perth to Aberdeen, average 56·6 m.p.h., is the fastest start-to-stop schedule in force in Great Britain at the present time. Southbound, the postal reverts to its pre-war 3.30 p.m. departure from Aberdeen, and to its pre-war running times to Perth, with a 55·7 m.p.h. run from Forfar to Perth, whence the passenger portion reaches Glasgow at 7.13 p.m. (12 min. acceleration). The postal train itself reaches Euston at 4 a.m., so taking 11½ hr. northbound and 12½ hr. southbound for the 540-mile journey. Restaurant cars are restored to the 10 a.m. and 5 p.m. from Glasgow to Aberdeen, the 10.5 a.m. and 5.25 p.m. from Aberdeen to Glasgow, the 6.15 a.m. and 11.55 a.m. from Perth to Aviemore, and the 12.33 and 5.5 p.m. from Aviemore to Perth.

On the Western Division the Watford stop is taken out of several additional schedules, including the 8.45 from Euston to Chester, the 10 a.m. (previously 9.52 a.m.) from Manchester, 10 a.m. from Liverpool, 8.25 a.m. from Heysham (Belfast boat train), and 2.35 p.m. from Blackpool, thus practically restoring the pre-war position as regards stops at Watford. The Western Division restaurant car restorations are at 10 a.m. and 1 p.m. in each direction between Euston and Glasgow; 10.5 a.m. Euston to Perth and 8.40 a.m. Perth to Euston; 8.30 a.m., 10.35 a.m., 3.45 p.m., and 5.30 p.m. Euston to Liverpool, and 8 a.m., 10 a.m., and 5.25 p.m. Liverpool to Euston; 10.15 a.m. and 5.38 p.m. Euston to Manchester and 9.45 a.m. (non-stop) and 5.30 p.m. Manchester to Euston; 8.15 a.m. Euston to Holyhead and 1.45 p.m. Holyhead to Euston; 3 p.m. Euston to Heysham and 8.25 a.m. Heysham to Euston; 4.50 p.m. Euston to Stranraer (as far as Crewe); and 11.30 a.m. and 1.8 p.m. from Crewe to Euston. This makes a total of 40 restaurant car trains daily on the L.M.S.R.

By far the most revolutionary changes in the new L.M.S.R. timetable are those on the London, Tilbury & Southend section, over which the service has been completely recast, with considerable amplification and acceleration of the trains. Six additional trains are run between Southend and Fenchurch Street in the morning peak period, and seven more down in the evening. The fastest time from Fenchurch Street to Southend is reduced from 69 to 57 min., and in the up direction from 65 to 52 min., and the increase of service has made possible the reintroduction of the staggered arrangement of stops between Leigh and Thorpe Bay inclusive, which provides for a much more even distribution of passengers between the various trains. During the "rush" hours, the average acceleration of the entire service is between 15 and 20 min., and this radical improvement will be warmly welcomed by residents in this populous area of Essex. First-class accommodation is now provided on five trains in each direction in business hours, as compared with the previous two only.

Southern Railway

Restoration of main line train services over all sections of the Southern Railway, in the new timetables operative from October 1, is on a considerable scale. On the Western Section the resinstated trains include the 10.30 a.m. and 6.30 p.m. from Waterloo to Southampton, Bournemouth, and Weymouth (Bournemouth Central 12.51 and 9 p.m.; Weymouth 2.26 and 10.22 p.m.); and the 7.10 a.m. and 5.20 p.m. from Weymouth, leaving Bournemouth Central at 8.40 a.m. and 6.30 p.m., and reaching Waterloo (with stops at Southampton and, on the former train, at Winchester) at 11 a.m. and 8.58 p.m. Hourly service is thus restored from Waterloo to Southampton and Bournemouth from 8.30 a.m. to 7.30 p.m., except at 12.30 p.m. (which runs on Saturdays only), and 2.30 p.m. There is also a new late train from Waterloo at 10.30 p.m. to Dorchester, calling at principal stations, and a new up express from Bournemouth West at 4.25 p.m. and Central at 4.35 p.m., for Southampton and Waterloo, due at 6.56 p.m. On the Western Division the 2.30 and 4.30 p.m. trains from Exeter to Waterloo, during wartime run daily in summer only, are permanently restored to the timetable. Restaurant cars are run between Waterloo and Exeter on the 9 a.m., 10.50 a.m., and 6 p.m. trains from Waterloo, and the 7.30 a.m., 12.50 p.m., and 5.50 p.m. trains from Exeter Central. On the Portsmouth electric service from Waterloo there are reinstated expresses from Waterloo at 7.45 a.m., 11.45 a.m., and 1.45 p.m., completing the hourly sequence from 7.45 a.m. to 9.45 p.m., except at 7.45 p.m.

On the Central Division a number of non-stop trains have been restored, on both weekdays and Sundays, between Victoria and Brighton, but there are still certain gaps in the sequence; these 60-min. trains number six in each direction on weekdays, with additional services on Saturdays and Sundays. On the Eastbourne and Hastings service, there are now hourly trains from Victoria from 9.45 a.m. to 8.45 p.m., except at 1.45 and 2.45 p.m. on weekdays, with a corresponding service in the reverse direction. On the Eastern Division, the 7.15 p.m. express is restored from Charing Cross to Folkestone (85 min., as compared with 90 min. pre-war), Dover, Deal, and Ramsgate, with a similar service on Saturdays only at 4.15 p.m.; coming up, there is a new 4 p.m. from Ramsgate, 4.49 p.m. from Dover Priory, and 5.8 p.m. from Folkestone, reaching Charing Cross at 6.45 p.m. To Hastings, *via* Tonbridge, there are new trains at 9.25 a.m. and 2.25 p.m. from Charing Cross, arriving at 11.25 a.m. and 4.19 p.m., and up trains at 11.15 a.m. and 7.10 p.m. up, due in Charing Cross at 1 p.m. and 9.2 p.m. The Chatham line regains the 5.15 p.m. from Cannon Street to Ramsgate, reaching Margate at 6.58 p.m. and Ramsgate at 7.17 p.m., and also a train at 9.35 p.m. down, due Margate at 11.36 p.m. and Ramsgate at 11.55 p.m. In the up direction, the restorations are at 8.35 a.m. and 5.10 p.m. from Ramsgate, and 8.50 a.m. and 5.28 p.m. from Margate, reaching Victoria at 10.39 a.m. and 7.7 p.m. The 7.30 a.m. from Ramsgate starts at 7.35 a.m., omits all stops beyond Whitstable, and is due in Cannon Street at 9.41 a.m. an acceleration of 24 min.

Of cross-country services, the 11 a.m. train is restored from Brighton to Cardiff, due 4.46 p.m., with the 1 p.m. from Cardiff to Brighton, *via* Bristol, Salisbury, and Southampton, due in Brighton at 6.53 p.m. The 9.42 a.m. from Brighton to Bournemouth and the 1.30 p.m. from Bournemouth to Brighton are reinstated also. The 11.30 a.m. from Brighton to Plymouth now starts 30 min. earlier, at 11 a.m. All the London suburban services are amplified, and get at least half-hourly trains through the middle of the day.

London Passenger Transport Board

On the Bakerloo line the service during peak hours has been augmented from 14 to 16 trains hourly to and from Stanmore. On the Watford line the service during off-peak hours has been increased from two to four trains in each direction hourly. From Mondays to Fridays trains from Baker Street to Uxbridge and Watford after 7.30 p.m. run at 15-min. instead of 20 min. intervals. The Piccadilly line has its trains which previously terminated at Arnos Grove extended to and from Wood Green. From November 5, nine Northern line trains which hitherto have started from Archway during the morning peak hours will start from Finchley Central instead. After 7.30 p.m. the service on the Northern line *via* Charing Cross will be increased, and trains from High Barnet and Mill Hill East to Kennington by this route, will be extended to Morden. Increased services are operating over other lines.

L.M.S.R. Perth-Euston Express Derailment

Brief reference was made in our October 5 issue to the derailment of the 8.20 p.m. passenger train from Perth to Euston at 9 o'clock on Sunday morning, September 30, when the locomotive and six coaches became derailed and plunged down and piled up in a field at the foot of the embankment while crossing from up fast to up slow line between Berkhamstead and Boxmoor. The work of rescuing the passengers from the wrecked coaches was commenced immediately by people in the neighbourhood, and a general call for doctors and nurses met with a quick response. Ambulances and rescue parties were also sent from the U.S.A. Air Force Aerodrome about 8 miles from the scene of the derailment. A total of 39 passengers were killed and 98 were injured. Three of the injured have since died in hospital bringing the death roll up to 42. An inquest was opened at Berkhamstead on October 3 and was adjourned on October 5 after evidence of identification had been completed.

Lt.-Colonel Sir Alan Mount, Chief Inspecting Officer of Railways, Ministry of War Transport, opened the public inquiry at Watford on October 4.

Sir Alan Mount stated that he had been told by Mr. J. W. Watkins, Divisional Superintendent of Operation at Crewe, that the engine was derailed in crossing from the fast to the slow line because of excessive speed. Mr. E. Hope, District Engineer, stated that the displacement of the rails showed that the speed must have been between 50 and 60 m.p.h., when it might have got through at 40 m.p.h. at the maximum. Mr. Watkins declared, "It was too great a speed over the crossing. Something must have happened. It is difficult to give an explanation why the driver did not reduce speed in view of good weather and a good signal and the fact that he was a good man." The driver, Sidney Swaby, was most reliable and experienced and regularly worked over the road. He was 55 years of age, and had been in the company's service for 37 years; like the fireman, Walter Jones, he had an excellent record.

It was disclosed that Swaby's original duty was on the 4.10 a.m. train, but as the express driver was not available Swaby was asked to work the express.

Mr. Hope further stated that the points and materials at the scene of the derailment were relaid two years ago. The train was diverted to the slow line because of engineering operations in Watford Tunnel, which had been notified in the fortnightly notice issued to employees. There was a speed restriction of 20 m.p.h. at the crossing. This restriction was in the fortnightly notice. Mr. Watkins said that there was a supplement to the notice found in Swaby's jacket, in the engine locker. That did not mean he did not have the notice. It had not been found. It was probably on his clothing and destroyed.

Mr. J. Cox, an L.M.S.R. official, who stated there were 398 passengers on the train, added that the running gear had been examined and was in thoroughly good order before the accident.

Signalman H. G. Nash, of Bourne End, said the express was the third train that morning to pass over the points from up-fast to up-slow. Describing the accident Nash said: "I saw the train about 200 yards away. I heard it coming, and thought it was coming rather faster than it ought. The engine when it went over the points rocked very badly, then it seemed to go down the bank, and the train piled up on it. I did not hear the brakes applied and did not see any sparks. I did not hear a whistle blow."

Sir Alan Mount: Do you think the driver reduced speed?—I don't know, but I should say that at the time he was going by me his speed was between 40 and 45 miles an hour.

Sir Alan Mount: A good deal slower than he would normally have been running had he been running straight through?—Yes.

Sir Alan Mount: Have you ever seen a train go through the crossing as fast as this one?—No, sir.

Nash added: "I did all that was possible, sir."

Sir Alan Mount replied: "I am sure you did. I am sure you did very well indeed."

A running-shed foreman at Crewe named Bolton said that he asked Swaby if he would take the 4.23 a.m. to Euston.

Sir Mount Mount: Do you feel it necessary to advise drivers about special diversions, and draw their attention to special notices?—We see they get the notices.

A foreman at Crewe North, named Ellis, gave evidence of handing Driver Swaby the fortnightly notice already referred to, and an area technical official gave evidence that the signalling apparatus was in satisfactory condition.

Ganger J. Scott said that while standing by the signal box he heard a train going from the up-fast to the up-slow line. The noise for this movement was unusual. He looked round and saw the engine reeling, and coal was being thrown off the tender. The train was going at least twice as fast as it should with the speed limit of 20 m.p.h. Scott said he ran a mile along the track, putting down detonators as a warning to other trains.

It was stated that before the engine could be raised it would be necessary to strengthen the embankment and use two 50-ton cranes.

After hearing the statements of the L.M.S.R. witnesses Lt.-Colonel Sir Alan Mount adjourned the inquiry until October 10, when it was to be resumed in private at Euston.

Soviet Transport Developments

By the end of 1944 some 59,000 km. (about 36,700 miles) of railway had been restored in the liberated areas of the Soviet Union. The railway route mileage of the Soviet Union was 86,746 km. (53,900 miles) before the war, the greater portion in European Russia, and practically all of the 5-ft. gauge. In 1938 the system is stated to have handled 56,800,000,000 goods ton-miles of traffic. Soviet railways had 21,700 steam locomotives in 1937. In 1944, increasing industrial output and other factors resulted in 25 per cent. more goods haulage in the first half of the year than in the corresponding period of 1943. No overall figures for 1944 have been issued. The severe shortage and deterioration of rolling stock and locomotives was alleviated to some extent by the capture of German rolling stock, and 7,405 German goods wagons are reported to have been converted to Russian gauge and put into service during the first half of the year. Before the war, the railways hauled about 90 per cent. of the country's goods tonnage.

During 1944, river transport services were restored on many routes in liberated territory, at least in part, and much was done to salvage sunken or damaged vessels and barges. Services on the Volga and tributaries improved over 1943; long hauls of petroleum and reconstruction equipment to Moscow and Stalingrad were reported. River transport accounted for only about 8 per cent. of pre-war goods haulage.

Before the war, road transport represented only 2 per cent. of the country's total freight haulage. During the war, lorry haulage has been important in military operations but has been restricted for civilian purposes. In 1937 the Soviet Union had only 841,000 miles of roads, and the surfaced mileage was 108,366 miles. At the end of 1939 the Soviet Union had an estimated 925,000 motor vehicles. The motorcar industry produced around 210,000 units annually, but is expected to have a post-war output capacity in the neighbourhood of 350,000 units.

Air transport has expanded during the war and post-war development may be expected. Late in 1944 Soviet planes were reported to be operatng to at least 10 foreign points on scheduled passenger services, although mostly for military and other governmental use. The destinations of services operating from Moscow included Sofia, points in Roumania and in Poland, and principal cities in the Baltic States. A service primarily for Army and diplomatic use is operating to Helsinki and connects with a service to Stockholm. In addition, services are operated to Baku, Teheran, and the principal centres in the Central Asia Republics. One air line connects with a Chinese service operating to Chungking.

Staff and Labour Matters

Restaurant Car Staff

With partial restoration of restaurant-car services on October 1, came new rates of pay and conditions of service for the restaurant-car travelling staff. Proposals for this section of staff were included in the original claims of the N.U.R. covering all sections of railway employees and agreement between the Railway Executive Committee and the National Union of Railwaymen was reached on this section immediately before the restoration of the restaurant-car services. The new composite rates of pay are:—

	1st year	2nd year	3rd year	
Attendant ...	56s.	58s.	60s.	
Conductor ...	64s.	65s.	66s.	
Assistant Cook	72s.	73s. 6d.	75s.	
Cook	90s.	92s. 6d.	95s.	
Age	16 and under 17	18	19	20
Kitchen boy ...	29s.	34s.	39s.	44s. 51s.
Pantry boy and page	25s.	30s.	35s.	40s. 47s.

Commencing next year, holidays are to be increased to two weeks with leave with pay on two bank holidays. Payment for Sunday duty is to be increased from time-and-a-half to time-and-three-quarters. Hours of duty are 108 a fortnight and overtime is paid for at the rate of time-and-a-quarter.

NATIONALISATION OF INLAND TRANSPORT.—The directors of the Edinburgh Chamber of Commerce & Manufacturers have decided to ask the Association of British Chambers of Commerce to oppose the nationalisation of inland transport. It is pointed out that it is the intention of the Government to establish public ownership of certain basic indutries, and the directors contend that, in so far as inland transport is concerned, nationalisation would not be in the best interests of all sections of the community

Notes and News

Woodhall Halt, L.M.S.R.—On October 1, a new halt, called Woodhall Halt, situated between Port Glasgow and Longbank, was opened for passenger traffic.

G. D. Peters & Co. Ltd.—The interim dividend of 7½ per cent. declared by G. D. Peters & Co. Ltd. is the same as for the previous year. It is payable on October 20.

Egyptian Delta Light Railways Limited.—For the year ended March 31, 1945, Egyptian Delta Light Railways Limited is paying 5½ per cent., less tax, on the 5½ per cent. cumulative preference shares (same).

Representation in Chile.—A well-known British manufacturer desires to contact firms established in Chile with close connections with Chilean railways and road transport undertakings. See Official Notices on page 379.

Chief Civil Engineer, Southern Railway.—On Monday last, October 8, the Headquarters of Mr. V. A. M. Robertson, Chief Civil Engineer, Southern Railway, were transferred from Deepdene Hotel, Dorking, to Waterloo Station.

Locomotive Draughtsman Required.—A locomotive draughtsman is required by the Iraqi State Railways for 3 years in the first instance. Candidates must have served an apprenticeship in the workshops of a British railway or firm of locomotive builders. See Official Notices on page 379.

Irish Transport Road Workers.—Several thousand workers in the road freight department of the Irish Transport Company *The Irish Times* states, will benefit as a result of an agreement between the company and the Irish Transport and General Workers' Union. The agreement fixes the wages and conditions of different categories of workers throughout the country, and will operate retrospectively. The arrangement has been sanctioned by the Government, and it entailed the amending of Emergency Powers (No. 260) Order, 1943. Many of the workers will receive substantial increases. The maximum bonus of 11s. a week is payable in all cases.

Vickers Limited.—An interim dividend of 4 per cent., less tax, on the ordinary stock is to be paid on October 23 by Vickers Limited in respect of 1945.

Draughtsman Required.—A large organisation requires a draughtsman with five years experience in workshops, and equal experience in locomotive and wagon engineers' drawing office. See Official Notices on page 379.

Railway Benevolent Institution.—The Railway Benevolent Institution has received a donation of 100 guineas from the Music Hall Artistes' Railway Association as a further token of appreciation for the courtesy and consideration shown to members of that Association when travelling.

U.N.R.R.A. Appointments. — The United Nations Relief & Rehabilitation Administration invites applications for a number of railway posts in China. These include a locomotive repair instructor, an airbrake instructor, a training instructor (locomotive boilers), a car repair instructor, a locomotive crew instructor and two highway mechanical engineers. For full details see Official Notices, page 379.

Strathaven-Blantyre Passenger Service Withdrawn.—The passenger train service between High Blantyre and Strathaven, Lanarkshire, was withdrawn at close of work on Saturday, September 29. Parcels traffic for the stations affected is being dealt with as follow: High Blantyre at Blantyre; Meikle Earnock & Quarter at Hamilton (Central); and Glassford & Strathaven North at Strathaven (Central).

Hurst, Nelson & Co. Ltd.—For the year to July 14, 1945, Hurst, Nelson & Co. Ltd. reports a net trading profit (after taxation) of £45,360 (£45,038). Net profit after depreciation, deferred repairs £5,500 (£4,500), etc., was £32,637 (£32,613), and £14,550 (£21,936) was brought in. The dividend on the ordinary shares is again 12½ per cent. and £16,187 is carried forward. The balance sheet shows wagons £309,453, a decrease of £43,291, investments and tax reserve certificates £337,386, and stock and work in progress £258,073, an increase of £39,155.

Stothert & Pitt Limited.—For the year ended June 30, 1945, the dividend payable by Stothert & Pitt Limited on the ordinary shares is 10 per cent., together with a bonus of 5 per cent., both less tax. This distribution is the same as for the previous year, but it is made on a capital increased by 50,000 new ordinary £1 shares issued in June last. The net premium of £54,539 from this issue has been placed to share premium reserve, and £20,000 is transferred to contingency reserve. The amount to be carried forward is £41,064, against £32,433 brought in.

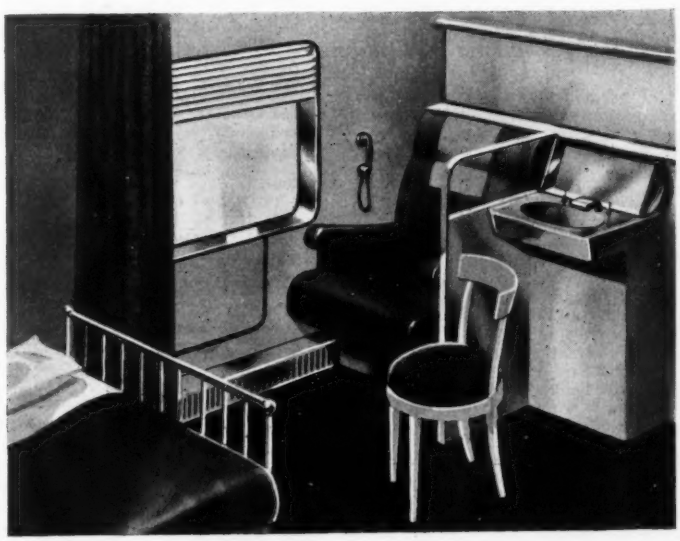
Scottish Engineering Students' Association.—The Scottish Engineering Students' Association has been formed with headquarters at 420, Sauchiehall Street, Glasgow, C.2. The aims of the Association include the provision of means whereby young men in all branches of engineering can meet to read and discuss papers and exchange views and ideas, and to provide activities for younger members of technical institutions and societies, who may not be themselves in a position to organise individual student meetings. It is stated that over twenty institutions and societies have recognised the Association. The Presidential Address was to be given by Sir Harold Yarrow yesterday, October 11.

Fluorescent Lighting on the L.P.T.B.—A full-scale fluorescent lighting experiment has begun at London Transport's Piccadilly Circus Station. The lighting gives three times as much illumination as pre-war, but with a more economic use of current. This type of lighting was first used early in the year and, arising out of the experience gained from its use, the Board's designers have produced an improved fitting. This has been fitted over the eastbound platform of the Piccadilly Line and takes the form of two glass tubes, assembled side by side in the centre of the roof. If the new form of lighting proves satisfactory, consideration will be given to extending it to other stations when the fuel position permits of a full return to pre-war current consumption.

Landslides in Costa Rica.—Reports from Costa Rica state that, in view of the possibility that heavy rains may again cause landslides on the Northern Railway line (Port Limon to San Jose), making it inoperative for several months—as happened last year—Costa Rican officials are taking active measures to move freight as expeditiously as possible from Port Limon to the Meseta Central. Included among steps taken in this connection is the projected transfer from the less active Ferrocarril Eléctrico al Pacifico (San Jose to Puntarenas) to the Northern Railway, of 50 railway cars, and the construction of a temporary wood trestle around the site of last year's large slide near Los Lomas on the Northern Railway.

Mersey Dock Works.—The Mersey Docks & Harbour Board Act, 1945, which received the Royal Assent on May 30 last, authorises the Board to construct several new works. These include a new entrance from the River Mersey into the Langton Dock; two river walls; a new cut between the Canada Dock and the Brocklebank Dock; the enlargement and alteration of the Canada and Brocklebank Docks; a widening of the quay on the west side of the

Nursery Railway Coach



A room for day and night travel designed by the American Car & Foundry Company. The bed folds to provide a double seat. There is a folding table beneath the window, telephone to stewardess, and wash basin

Langton Dock; and a new quay wall extending from the Brocklebank Dock to the Langton Dock to the eastward of the existing cut between those docks. For the purposes of the works now authorised the Board may borrow £7,000,000, for the general purposes of its undertaking an additional £3,000,000, and for conservancy purposes £500,000. Additional powers also are given to the Board with reference to pensions and superannuation. The Act also provides for the amendment of the Wallasey Embankment Acts of 1894 and 1923.

Renold & Coventry Chain Co. Ltd.—Profit on trading, after depreciation, etc., of the Renold & Coventry Chain Co. Ltd. for the year to July 1, 1945, amounted to £202,930, against £207,098 after depreciation, etc., and E.P.T. Adding £16,000 (nil) for E.P.T. recoverable makes a total of £218,930. After deducting £102,600 for income tax there is a net profit of £116,330 (£105,098). The usual final dividend of 7 per cent. is being paid, making 10 per cent. for the year. In addition there is a bonus of 2½ per cent., making a total distribution for the year of 12½ per cent., against 10 per cent.

Peter Brotherhood Limited.—The trading profit of Peter Brotherhood Limited, after providing for E.P.T., for the year to March 31, 1945, amounted to £78,763 (£91,070). Deducting directors' fees £1,372, provision for income tax £43,500 (£44,817), and war risks insurance £681 (£1,247) leaves a net profit of £33,210 (£44,534). Adding £139,687 brought in makes an available balance of £172,897 (£175,725). Provision is made for special repairs and renewals of £10,000 (same). Final dividend on the ordinary shares is 12 per cent., making 20 per cent. for the year (same), and £140,859 is carried forward. Many orders for machinery and general structural work are now being taken in hand.

Murex Limited.—A preliminary statement relating to Murex Limited shows that the profit for the year to June 30, 1945, including estimated refund of E.P.T. and after making provision to cover full income tax and E.P.T. liabilities, is £213,032 (£239,446). The final ordinary dividend is 10 per cent. and there is a cash bonus of 2½ per cent., making a total distribution of 20 per cent., less tax, for the year, the same as for the eight previous years. It is pointed out that there has been a substantial reduction in the trading profit for the year of the parent company due to falling off in the demand for the company's products in the closing stages of the war and to the liquidation of stocks held by users and Government departments.

Abolition of Exit Permits.—From October 1, exit permits are not required by British subjects or aliens leaving Great Britain. In view, however, of the continued heavy calls on manpower, it is still necessary to control the departure of British men and women who are liable to compulsory military or national service. British passports (or travel cards for journeys to Ireland) therefore are issued to such persons only on production of a clearance certificate issued by the Ministry of Labour & National Service. By arrangement with the authorities in Jersey and Guernsey the exit permit required for temporary visitors to the Channel Islands will remain in force until the majority of evacuees have returned. The abolition of exit permits does not give any priority claim to a passage. No additional accommodation is yet available, by sea or by air, for long journeys; in present circumstances accommodation for such journeys can be allocated by the Ministry of War Transport or Ministry of Civil Aviation only to travellers whose journeys are sponsored by the appropriate Government Department.

Pacific Railway of Nicaragua.—The Pacific Railway Company of Nicaragua has reported that it hauled 8,111,600 ton-km. of goods during the first five months of 1945, an increase of 11 per cent. compared with the corresponding period of 1944.

Betley Road Station, L.M.S.R.—Betley Road Station was closed for passenger and parcels traffic on and from October 1. Alternative road facilities by Crosville Motor Services Limited are available to and from Crewe. Parcels traffic for the area is being dealt with at Crewe Station.

Irish Transport Superannuation Scheme.—The Minister for Industry & Commerce has made an Order entitled "Córas Iompair Eireann Superannuation Scheme for Regular Wages Staff (Confirmation) Order, 1945" (Statutory Rules & Orders—1945—No. 242), confirming, with modifications, the provisions of a Superannuation Scheme submitted by Córas Iompair Eireann for its wages staff.

Sentinel (Shrewsbury) Limited.—For the year to March 31, 1945, the profit of Sentinel (Shrewsbury) Limited—formerly Sentinel Waggon Works (1936) Limited—including reserves now freed was £137,480 (£87,631). Deduction of fees, depreciation, etc., and £98,687 provision for taxation leaves a net profit of £26,795 (£18,346). Preference dividends for the year 1944 and for the six months to June 30, 1945, have been paid. It is considered that the present orders in hand should occupy the full capacity of the works for a period of from one to two years.

G.N.R. (I.) Train Services.—Consequent upon the discontinuance of Summer Time on and from Sunday, October 7, in Northern Ireland, and of its continuance in Eire, numerous alterations have come into operation in the train services of the Great Northern Railway (Ireland). The full train service between Dublin and Belfast is now:—

WEEK-DAYS

		a.m.	p.m.	p.m.	p.m.	p.m.
DUBLIN	dep.	9.0	12.45	3.15	5.30	7.15
BELFAST	arr.	11.5	2.50	5.25	7.40	9.20
		a.m.				
BELFAST	dep.	8.15	10.15	12.0	2.45	5.15
		p.m.	p.m.			
DUBLIN	arr.	12.25	2.15	4.0	6.55	9.20

SUNDAYS

DUBLIN	dep.	10.0 a.m.	6.0 p.m.	7.0 p.m.
BELFAST	arr.	12.20 p.m.	8.20 p.m.	9.40 p.m.
BELFAST	dep.	9.15 a.m.	5.0 p.m.	
DUBLIN	arr.	1.55 p.m.	9.25 p.m.	

Changes are also notified on other sections, and additional trains on weekdays, including:—10.15 a.m. Enniskillen to Belfast with connection from Londonderry; 4.30 p.m. Belfast to Enniskillen with connection Omagh and Londonderry; 7.15 p.m. Belfast to Tynan; and 7.40 p.m. (Saturdays excepted), Warrenpoint to Belfast; 8.45 a.m. Cootehill to Ballybay; 8.15 a.m. Ballybay to Dundalk; and 9.45 a.m. Ballybay to Cootehill. There are also changes in the times of bus services in Eire.

Chiriqui National Railroad.—The income of the Chiriqui National Railroad, owned and operated by the Panamanian Government, amounted to $396,837 in 1944, whereas receipts for the preceding year were $390,558. Operating expenses totalled $10,219 less than in 1943. Total expenses amounted to $391,178 in 1944 and $401,307 in 1943. The greatest increases in income were in passenger fares, rental of track, and mechanical shop operations, but these were offset substantially by a decrease in goods and luggage revenue. Comparative data regarding passenger and goods movement for the two years are as follow, with figures for 1943 in parentheses: Distance traversed by passenger trains, 402,964 km. (389,500); number of passengers carried, 544,532 (513,698); distance travereed by goods trains, 492,016 km. (108,199); total

British and Irish Railway Stocks and Shares

Stocks	Highest 1944	Lowest 1944	Prices Oct. 10, 1945	Prices Rise/Fall
G.W.R.				
Cons. Ord.	62⅛	55	54	+ 1⅛
5% Con. Pref. ...	122¼	114⅛	108⅛	+ ⅛
5% Red. Pref. (1950)	110½	104	103	+ ⅛
5% Rt. Charge ...	135½	128	123	—
5% Cons. Guar. ...	134⅞	125	122	—
4% Deb.	118½	112½	109	+ 1
4½% Deb.	118⅛	114	109½	—
4½% Deb.	124½	119½	113	—
5% Deb.	137	129½	126	—
2½% Deb.	77	73½	80½	—
L.M.S.R.				
Ord.	34⅜	27⅞	27⅜	+ 1⅛
4% Pref. (1923) ...	64⅛	55	56⅛	+ 1
4% Pref.	81	72½	75	+ ⅛
5% Red. Pref. (1955)	105⅜	102	102	—
4% Guar.	107½	99½	100½	—
4% Deb.	111½	104	105½	+ 1
5% Red. Deb. (1952)	111	108	106½	+ ⅛
L.N.E.R.				
5% Pref. Ord. ...	10½	7⅞	6⅜	—
Def. Ord.	5⅞	3⅜	3½	—
4% First Pref. ...	68⅜	55½	55½	+ 1
4% Second Pref. ...	35⅜	28½	28½	+ ⅜
5% Red. Pref. (1955)	101	97½	98	—
4% First Guar. ...	101½	96⅜	97½	—
4% Second Guar. ...	95½	88½	91½	—
3% Deb.	88½	80⅜	86½	—
4% Deb.	110½	103½	104	—
5% Red. Deb. (1947)	105⅜	101½	101	—
4½% Sinking Fund Red. Deb.	107	104½	104½	—
SOUTHERN				
Pref. Ord.	80½	71⅞	71	+ 1
Def. Ord.	26⅜	23	24½	+ 1
5% Pref.	122	113½	107½	+ ⅛
5% Red. Pref. (1964)	117½	112½	110½	—
5% Guar. Pref. ...	134	125½	121½	—
5% Red. Guar. Pref. (1957)	115⅜	112½	108	—
4% Deb.	118	110	108½	+ 1⅛
5% Deb.	135½	127	126	—
4% Red. Deb. (1962-67)	111½	107½	106½	+ 1
4% Red. Deb. (1970-80)	112	108¾	106½	+ 1
FORTH BRIDGE				
4% Deb.	107	103	104	—
4% Guar.	106½	102	103	—
L.P.T.B.				
4½ "A"	125	119	119½	— ⅛
5% "A"	133½	128	129½	—
3% Guar. (1967-72)	99½	98	99	—
5% "B"	124½	118⅞	118½	—
"C"	72⅜	64½	62	+ 1
MERSEY				
Ord.	35⅜	33	32	—
3% Perp. Pref. ...	72	66	69	—
4% Perp. Deb. ...	105	103	104	—
3% Perp. Deb. ...	85½	79½	80	—
IRELAND*				
BELFAST & C.D.				
Ord.	9	6	7	—
G. NORTHERN				
Ord.	33⅞	19	32⅝	— ⅜
Pref.	49	37	49	+ ⅛
Guar.	70	57⅛	74½	+ ⅛
Deb.	90½	81½	90	+ ⅛
IRISH TRANSPORT				
Common	—	—	78½	+ ⅛
3% Deb.	—	—	100⅛	+ ⅜

* Latest available quotation

OFFICIAL NOTICES

United Nations Relief and Rehabilitation Administration

INVITES applications for the undermentioned posts in China :—

LOCOMOTIVE REPAIR INSTRUCTOR FOR CHINA

Required to give instructions on modern methods and technique of repairing locomotives.

Should have thorough practical knowledge of latest and fastest methods of repairing locomotives and of materials and equipment required.

Adaptability to work under conditions where only limited equipment is available. Institute of Mechanical Engineers qualifications. Good physical condition. (Ref. No. C.2843A.)

SALARY: £1,000 per annum. Free board and lodgings.

AIR BRAKE INSTRUCTOR FOR CHINA

Should have thorough practical knowledge of repair, maintenance and inspection of air brakes, materials and equipment. Institute of Mechanical Engineering qualifications. Good physical condition. (Ref. No. C.2844A.)

SALARY: £1,000 per annum. Free board and lodgings.

TRAINING INSTRUCTOR (LOCOMOTIVE BOILERS) FOR CHINA

Should have thorough practical knowledge of methods of inspecting, repairing and construction of boilers, together with materials and equipment.

Good physical condition. Institute of Mechanical Engineering qualification. (Ref. No. C.2845A.)

SALARY: £1,000 per annum. Free board and lodgings.

CAR REPAIR INSTRUCTOR FOR CHINA

Should have thorough knowledge of methods of inspection and repairing railway cars; ability in improvising methods where facilities are limited. Good physical condition. Institute of Mechanical Engineering qualifications. (Ref. No. C.2846A.)

SALARY: £1,000 per annum. Free board and lodgings.

LOCOMOTIVE CREW INSTRUCTOR FOR CHINA

Should have thorough knowledge of operation and inspection of steam locomotives; adaptability to conditions where facilities may be temporarily poor or lacking. Very good physical condition. Institution of Mechanical Engineering qualifications. (Ref. No. C.2847A.)

SALARY: £1,000 per annum. Free board and lodgings.

TWO HIGHWAY MECHANICAL ENGINEERS FOR NORTH AND SOUTH-EAST CHINA

Should have considerable intensive and responsible experience in supervising the operation, repair and maintenance of all types of road machinery. Ability to adapt methods and machinery previously used, in the highway rehabilitation programme in China. Adaptability to situations where facilities may be limited. Very good physical conditions. Institute of Mechanical Engineering qualifications. (Ref. No C.2848A.)

SALARY: £1,000 per annum. Free board and lodgings.

Write, quoting appropriate reference number, to Ministry of Labour and National Service, Appointments Department, Technical and Scientific Register, Room 670, York House, Kingsway, London, W.C.2, for application form, which must be returned completed by October 22, 1945.

DRAUGHTSMAN with 5 years' experience in Workshop and equal experience in Loco. and Wagon Engineers' Drawing Office required by large organisation. Experience in bridging and crane design, and knowledge of French an advantage. Must be good mathematician. Salary £600-£800 according to experience.—Write Box No. 810, c/o *The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

JUNIOR DRAUGHTSMAN with ambitions and Railway Trade experience, age about 25, required for Railway Division Drawing Office.—The Laycock Engineering Co. Ltd., Sheffield.

REPRESENTATION in Chile. A well-known British Manufacturer desires to contact firms established in Chile with close contacts with Chilean Railways and Road Transport Undertakings for appointment as representatives handling the sale of electrical products applied to locomotives, coaches and road vehicles.—Reply in confidence to Box No. 1210, c/o *The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

OVERSEAS EMPLOYMENT. LOCOMOTIVE DRAUGHTSMAN required by the Iraqi State Railways for 3 years in the first instance. Salary Iraq dinars 50 a month plus high cost of living allowance between I.D. 12 and I.D. 15 a month, according to dependants. (I.D. 1 = £1.) Free passages. The post is not pensionable, but there is a Provident Fund. Candidates must have served an apprenticeship in the workshops of a British railway or firm of locomotive builders, and have a good knowledge of modern steam locomotive design and construction. A knowledge of diesel traction would be an advantage.

Written applications (no interviews), giving the following essential details: (1) full name; (2) date of birth; (3) industrial training and experience; (4) name and address of present employers; (5) details of present work; should be sent to the Secretary, Overseas Manpower Committee (Ref. 1603B), Ministry of Labour and National Service, York House, Kingsway, London, W.C.2. Applications cannot be acknowledged.

None of the vacancies on this page relates to a man between the ages of 18 and 50 inclusive unless he is excepted from the provisions of the Control of Engagement Order, 1945, or the vacancy is for employment excepted from the provisions of that Order.

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cargo carried, 41,405 tons (40,228). The Government expects to purchase new equipment for the railway in 1946.

The Morgan Tilting Furnace.—The caption to the illustration of the Morgan crucible furnace, appearing on page 316 of our September 28 issue, stated that the furnace front swings into the spilt-metal pit. This is not strictly correct because the position of the furnace lip remains constant, directly over the pit, and accordingly the body of the furnace is pushed backwards and away from the pit when pouring. In the table of furnace sizes (column 1), the last two entries should read ¾ ton (brass) and ½ ton (aluminium), respectively.

Folkestone-Ostend Steamship Service.—The Ministry of War Transport states that the Folkestone-Ostend steamship service will be re-opened from Ostend on October 22 and from Folkestone on October 23. The service will operate from Ostend on Mondays, Wednesdays, and Fridays, and from Folkestone on Tuesdays, Thursdays, and Saturdays. Applications for passages will be dealt with by the Southern Railway Continental Booking Office, Victoria Station, London.

The Irish Tourist Association.—On October 9, the High Commissioner for Eire, supported by the General Manager (Mr. G. C. Bredin) of the Irish Transport Company, formally opened a travel bureau which has been established by the Irish Tourist Association at 19, Regent Street, London, S.W.1, in the premises of the travel bureau of the former German State Railways. There is a display of coloured posters depicting various tourist centres in Ireland, and travel literature.

New Rolling Stock on G.W.R.—On the assumption that adequate labour and materials will be available by the end of this year, the Great Western Railway proposes to construct in its Swindon Works during 1946 119 locomotives, 260 passenger vehicles, and 2,734 goods wagons. Many of the new passenger coaches will be fitted with fluorescent tubular lighting, never previously used in rolling stock, which cuts out glare and shadow and gives an even daylight effect over the whole compartment. These new coaches, which will be steel panelled, will be larger than the present ones. There will be more leg room in the compartments and space in the vestibules, thus making for greater comfort. Empire veneer and specially woven material will be used for the interior furnishing.

Perishable Produce from East Anglia.—Towards the end of last week considerable accumulation of perishable foodstuffs due to abnormal inwards consignments occurred at the Kings Cross goods depot in consequence of which the London & North Eastern Railway had to impose a temporary ban on the reception of further consignments pending clearance of space. Arrangements were made by the Ministry of Food for Covent Garden and other salesmen to clear the goods and whilst the ban obtained the Ministry organised road services direct from the growers to London to maintain supplies to the markets. The London & North Eastern Railway stated that the origin of the ban was lack of manpower, as there was not sufficient staff to cope with a sudden rush of traffic. Bishopsgate, Marylebone, and Holloway depots were not subjected to the ban.

Disposal of Government Surplus Machine Tools.—As was recorded in our September 28 issue, the Machine Tool Control recently decided to sell certain Government surplus machine tools direct from site at sales depots at selected factories. A self-contained sales organisation was set up recently at Rootes Securities Limited, No. 2 Engine Factory, near Coventry, where intending purchasers have been able to inspect and purchase machines where they lie. This arrangement is stated to have been well received by firms requiring machines for the reconversion of industry; and a similar sale was arranged to take place at the Bristol Aeroplane Co. Ltd., Accrington Engine Factory, Blackburn Road, Clayton-le-Moors, Accrington, on October 10. The machines on offer may be inspected from that date, and the usual assistance of the approved merchants are available.

British Aluminium Co. Ltd.—The interim ordinary dividend of the British Aluminium Co. Ltd. is announced at 2 per cent. For each of the past five years an interim of 3 per cent. has been paid, followed by a final of 7 per cent. The usual half-yearly payment on the 6 per cent. preference shares is also announced; both dividends being payable on October 1. In his statement made at the meeting of the company in March last, Mr. R. W. Cooper, the Chairman, mentioned the reduction in the controlled price of aluminium ingot and fabricated products and stressed that the changeover to commercial work would involve many difficulties adversely affecting profits. He was confident that ultimately the world's output would be absorbed.

Contracts and Tenders

Below is a list of orders placed recently by the Egyptian State Railways :—

Ferodo Limited: Locomotive spares.

North British Locomotive Co. Ltd.: Locomotive spares.

Brown Bayley's Steel Works Limited: Locomotive spares.

Whitelegg & Rogers Limited: Locomotive spares.

Taylor Bros. & Co. Ltd.: Locomotive spares.

Davies & Metcalfe Limited: Locomotive spares.

James Arnott & Sons Ltd.: Grease, tallow, etc.

Westinghouse Brake & Signal Co. Ltd.: Grease, tallow, etc.

Rivet, Bolt & Nut Co. Ltd.: Rivets.

Automatic Telephone & Electric Co. Ltd.: Benders.

Robert Hyde & Sons Ltd.: Locomotive spares.

Imperial Chemical Industries (Metals) Limited: Locomotive spares.

Beyer, Peacock & Co. Ltd.: Locomotive spares.

Forthcoming Meetings

October 20 (*Sat.*).—The Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W.1. 3.30 p.m. "A System of Production Control," by Mr. R. Gore, M.I.Mech.E.

Railway Stock Market

There has been a firm tone in stock markets with attention centred on the re-assembly of Parliament in expectation that further light will be thrown on international affairs and the Government's policy in regard to industry. Bank of England stock was again higher on balance and prospective nationalisation groups firm and tending to improve on hopeful assumptions as to the basis of compensation for stockholders in the event of future Government control plans.

Colliery and electric supply shares tended to show further improvement, but outstanding was another rally in home rails, which were also favoured on the view that both from the near and long-term angles the large yields on junior stocks are attractive. Prior charges were favoured on their high-class investment merits, full regard to which, of course, would have to be given in any scheme of fair compensation in future nationalisation developments. The upward tendency in prior charges of the main-line railways was also a reflection of the strong tone of British funds. The latter was accompanied by renewed talk in the market that a new Government loan may be in prospect.

Industrial shares were steady, the tendency being to await the interim Budget, expected later in the month. Although the latter is not likely to bring much in the way of reduced taxation, it should provide evidence of the financial policy to be followed by the Government. Nevertheless, as reduction in the burden of taxation is essential to the rebuilding of home and export trade, there are growing hopes that E.P.T. will be reduced substantially or abolished next year.

The further rally in home rails, although based on hopes as to compensation in the event of nationalisation, was due partly to the view that in any case nationalisation of transport is unlikely to be brought forward for some considerable time. The belief continues that two years or more may elapse before plans for a big problem of this kind could be finally decided, and meanwhile there seem good possibilities of dividends being maintained. Assumptions derived from terms offered to Bank of England stockholders, although an important market factor in drawing attention to home rails, colliery shares and securities of companies in other industries which may eventually be subject to nationalisation, do not carry much weight in responsible quarters.

It is recognised increasingly that special problems would arise in devising nationalisation plans for transport because of the many varied interests involved. On the other hand, there now seems growing confidence that the Government's intention is to offer reasonable terms to stockholders, and on many grounds a good case can be made out for the view that home rail stocks are considerably undervalued at current levels, particularly in view of the substantial yields obtainable on many of them.

Compared with a week ago, Great Western ordinary was unchanged at 53¾, an earlier decline having been regained; the 5 per cent. preference was maintained at 108, also the guaranteed stock at 122, and the 4 per cent. debentures were a point higher at 109. L.M.S.R. ordinary moved up from 26⅝ to 27¾, and the 1923 preference at 56½ was a point higher, and the senior preference fractionally better at 75.

L.M.S.R. guaranteed strengthened to 101, and the 4 per cent. debentures to 105. L.N.E.R. stocks participated in the upward trend, the second preference being 28¾, compared with 27¾ a week ago; the first preference rose from 54½ to 55¼, and the 3 per cent. debentures were higher at 86½. Southern deferred moved up from 23¼ to 24½, the preferred gained a further point at 71, with the guaranteed stock also higher at 122, and the 4 per cent. debentures 108. The price of London Transport "C" stock further strengthened to 61½.

There was a better tone in Argentine rails, Buenos Ayres Great Southern firming up to 11½, and the 5 per cent. preference and 4 per cent. debentures, after declining further, showed a partial rally to 24¾ and 64 respectively. Buenos Ayres Western 4 per cent. debentures recovered to 59½, and Central Argentine 5 per cent. debentures at 67 were slightly higher on balance.

In other directions, San Paulo was firm at 56, and after a further decline, United of Havana 1906 debentures rallied to 17½. Canadian Pacifics fluctuated moderately with other dollar stocks and at 20 11/16 were 3/16 below the level of a week ago.

Traffic Table and Stock Prices of Overseas and Foreign Railways

	Railways	Miles open	Week ended	Traffic for week: Total this year	Traffic for week: Inc. or dec. compared with 1943/4	No. of Week	Aggregate traffics to date: Totals 1944/5	Aggregate traffics to date: Totals 1943/4	Aggregate traffics to date: Increase or decrease	Shares or Stock	Prices: Highest 1944	Prices: Lowest 1944	Prices: Oct. 10 1945	Prices: Yield % (See Note)
				£	£		£	£	£					
South & Central	Antofagasta (Chili) & Bolivia	834	30.9.45	33,610	+ 1,070	39	1,168,630	1,114,450	+ 54,180	Ord. Stk.	13½	9½	11	Nil
	Argentine North Eastern ...	753	29.9.45	19,469	+ 931	13	248,588	229,694	+ 18,894	"	6¾	4½	8	Nil
	Bolivar	174	Sept., 1945	4,668	— 570	39	44,105	47,755	— 3,650	6 p.c. Deb.	18¾	7½	8½	Nil
	Brazil	—	—	—	—	—	—	—	—	Bonds	19⅞	15	23½	Nil
	Buenos Ayres & Pacific ...	2,771	29.9.45	124,000	+ 875	13	1,600,250	1,537,563	+ 62,687	Ord. Stk.	7 1/16	3¾	5¾	Nil
	Buenos Ayres Great Southern	5,080	29.9.45	207,438	+ 61,750	13	2,552,375	2,209,562	+ 342,813	Ord. Stk.	14⅞	9¾	11½	Nil
	Buenos Ayres Western ...	1,924	29.9.45	81,303	+ 13,063	13	919,438	850,872	+ 68,566	"	13¾	9½	10¾	Nil
	Central Argentine	3,700	29.9.45	195,366	+ 3,578	13	2,475,347	2,344,387	+ 130,960	"	10½	6⅞	8½	Nil
	Do.	—	—	—	—	—	—	—	—	Dfd.	4¾	3	4	Nil
	Cent. Uruguay of M. Video	972	29.9.45	29,812	— 1,452	13	444,808	403,256	+ 41,552	Ord. Stk.	5¼	4	6¾	Nil
	Costa Rica	262	Aug., 1945	32,060	+ 7,067	13	63,153	53,315	+ 9,838	Stk.	17½	14¼	15	Nil
	Dorada	70	Aug., 1945	29,000	— 875	34	243,335	207,565	+ 35,770	1 Mt. Deb.	101	101	101½	£5 18/3
	Entre Rios	808	29.9.45	25,125	+ 2,006	13	340,444	307,219	+ 33,225	Ord. Stk.	6½	4½	7	Nil
	Great Western of Brazil ...	1,030	29.9.45	23,600	+ 3,000	39	944,300	827,300	+ 117,000	Ord. Sh.	38/-	23/3	25/-	Nil
	International of Cl. Amer. ...	794	Aug., 1945	$719,411	+ $190,507	34	$6,251,918	+ $5,306,660	+ $945,258	—	—	—	—	—
	Interoceanic of Mexico ...	—	—	—	—	—	—	—	—	1st Pref.	1¾	¼	1	Nil
	La Guaira & Caracas... ...	22¾	Sept., 1945	6,742	— 294	39	56,245	71,331	— 15,086	5 p.c. Deb.	88	79	76½	7/65d
	Leopoldina	1,918	29.9.45	67,653	+ 1,419	39	2,018,862	1,828,944	+ 189,918	Ord. Stk.	5⅞	4¼	4	Nil
	Mexican	483	30.9.45	ps 918,800	+ 204,600	39	ps. 8,604,900	ps. 6,472,300	+ ps. 2,132,600	Ord. Stk.	¾	⅜	1⅜	Nil
	Midland Uruguay	319	Aug., 1945	17,124	+ 511	9	36,854	35,063	+ 1,791	—	—	—	—	—
	Nitrate	382	30.9.45	5,452	+ 1,794	39	137,678	135,901	+ 1,777	Ord. Sh.	75/10	65/10	73/-	£3 11
	North Western of Uruguay	113	Aug., 1945	4,975	— 2,430	8	11,067	13,050	— 1,992	—	—	—	—	—
	Paraguay Central	274	5.10.45	G$56,630	— 29,840	14	G$857,473	P$822,562	+ G$34,911	Pr. Li. Sh.	79½	68	77½	£7 14/1
	Peruvian Corporation ...	1,059	Sept., 1945	139,630	+ 9,703	13	422,833	375,652	+ 47,181	Pref.	9	10	10	Nil
	Salvador	100	Aug., 1945	c 94,000	+ c 7,000	8	c 189,000	c 175,000	+ c 14,000	—	—	—	—	—
	San Paulo	153½	—	—	—	—	—	—	—	Ord. Stk.	57¾	46	56	£5 4/4
	Taltal	156	Sept., 1945	2,465	— 240	13	6,665	8,240	— 1,575	Ord. Sh.	21/3	13/9	35/-	Nil
	United of Havana	1,301	29.9.45	44,090	— 10,527	13	568,388	646,399	— 78,011	Ord. Stk.	4	2½	1½	Nil
	Uruguay Northern	73	Aug., 1945	1,438	+ 35	9	3,370	2,890	+ 480	—	—	—	—	—
Canada	Canadian National	23,569	Aug., 1945	7,633,600	— 26,400	34	58,376,400	58,072,000	+ 304,400	—	—	—	—	—
	Canadian Pacific	17,028	30.9.45	1,571,800	— 177,200	39	47,336,000	47,590,600	— 254,600	Ord. Stk.	17¾	13 11/16	20⅞	2½
Various	Barsi Light†	202	Aug., 1945	20,257	+ 1,312	21	127,387	119,310	+ 8,077	Ord. Stk.	129½	97½	129½	£3 9/6
	Beira	204	July, 1945	77,345	— 12,669	44	770,752	814,071	— 43,319	—	—	—	—	—
	Egyptian Delta	607	10.9.45	15,307	— 893	23	257,800	293,300	— 35,500	Prf. Sh.	7 1/16	5¼	6¼	Nil
	Manila	—	—	—	—	—	—	—	—	B. Deb.	63½	58	69	Nil
	Midland of W. Australia ...	277	Aug., 1945	15,703	— 5,172	8	29,469	40,053	— 10,584	Inc. Deb.	101½	99½	95½	£4 3/-
	Nigeria	1,900	26.5.45	277,630	+ 23,531	8	1,823,785	1,739,068	+ 84,717	—	—	—	—	—
	Rhodesia	2,445	July, 1945	535,741	— 5,088	44	5,046,558	5,371,808	— 325,250	—	—	—	—	—
	South African	13,301	8.9.45	1,041 319	+ 165,654	23	22,708,672	19,873,219	+ 2,835,453	—	—	—	—	—
	Victoria	4,774	April, 1945	1,285,324	+ 96,325	—	—	—	—	—	—	—	—	—

Note. Yields are based on the approximate current price and are within a fraction of ⅛. Argentine traffics are given in sterling calculated @ 16 pesos to the £

† Receipts are calculated @ 1s. 6d. to the rupee.